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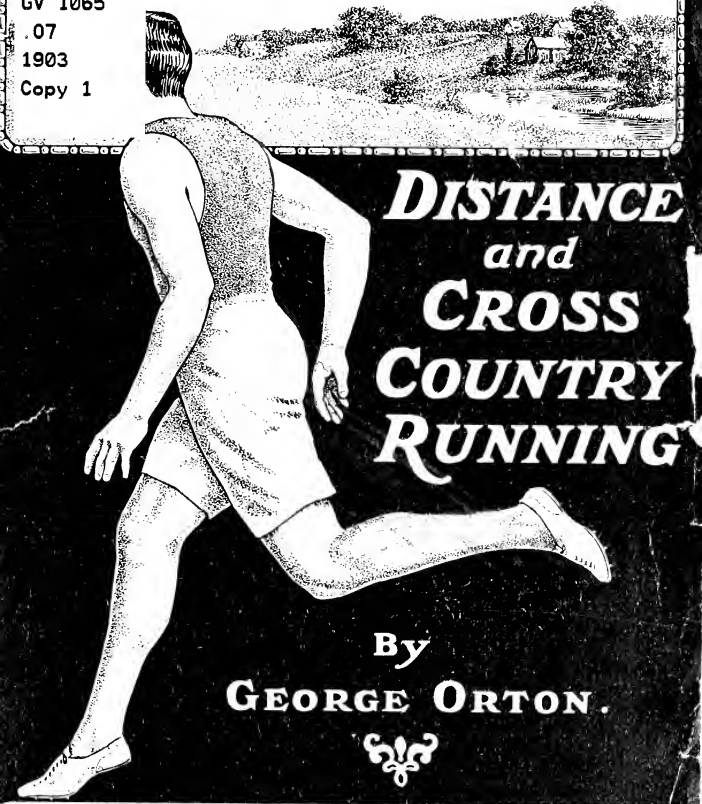
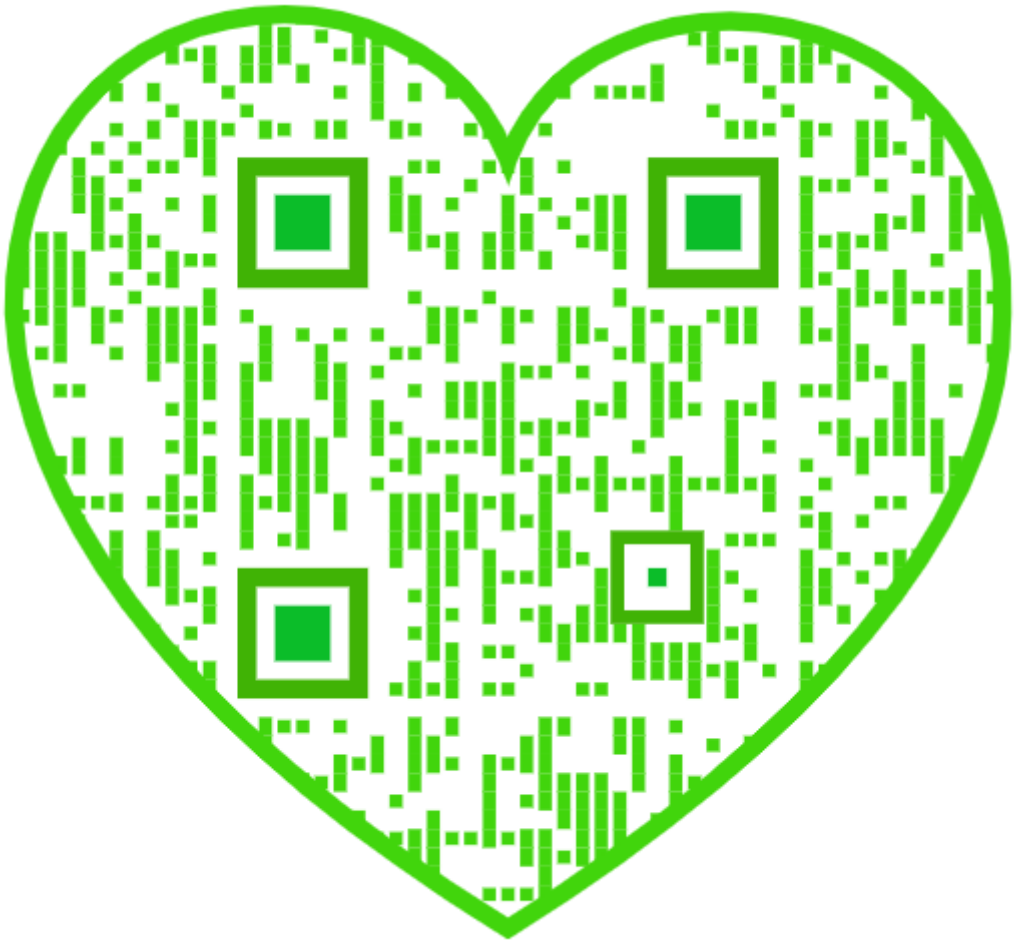


DISTANCE and CROSS COUNTRY RUNNING

By GEORGE ORTON.

AMERICAN SPORTS PUBLISHING CO.
16 & 18 Park Place, New York.



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DISTANCE
AND
CROSS COUNTRY RUNNING

BY

GEORGE ORTON

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SKETCH OF AMERICAN MIDDLE AND LONG DISTANCE RUNNERS.

America's middle distance runners and sprinters are famous throughout the world. Her distance runners rank second only to the Englishmen, whose climate and general upbringing have made them peerless in this one branch of sport. These are the two salient points that strike one in glancing hastily down the vista of American champions from 1876 to the present day. The American sprinter and quarter-miler are the best in the world today, and they have been so ever since 1880, only four years after the first American championships were held. The half-milers have found their equals in England, though that famous American distance runner, Kilpatrick, holds the best half-mile record ever made. But in such men as Bredin, who defeated Kilpatrick in England; Workman of Oxford, Cross, Tysoe, the late world's champion, and numbers of others, our British cousins have shown an equality.

In mile running, it is true we had the greatest of all distance runners (W. G. George alone excepted) in the person of Tommy Conneff, who, running under New York Athletic Club colors, made the present world's amateur record of 4 minutes 15 3-5 seconds. But Conneff was not American born, and thus the credit for the performance is shared with the Britishers. The best mile record ever made in America is that held by George W. Orton, at 4 minutes 21 4-5 seconds, while in England hardly a year rolls by that some new man does not beat 4 minutes 20 seconds. Last summer four men in the English championship mile race beat 4 minutes 20 seconds, the winner making a new

Fig. 1. Do not get the head too far back in the cramped position shown in the illustration. This is what is known as tieing up, and it can be avoided to a great extent by a conscious effort to retain form even when very tired. This position will also be accompanied by an up and down arm motion, while the legs will also be thrown into the air and the stride be greatly shortened.

English amateur record of 4 minutes 16 4-5 seconds. Thus, in distance running, the Englishmen must be granted a decided lead. This is all the more apparent the longer the distance. Practically but one great American ten-mile runner has been developed in the history of American amateur sport, that being the eccentric, but really very high class runner, the late W. D. Day.

QUARTER-MILERS.

In taking a glance over the quarter-milers that have come and gone, there is one name which should live as long as American sport exists, and that is L. E. Myers, now dead. In '79 and the early '80s his fame resounded throughout the civilized world as a man who combined both the qualities of a sprinter and the stamina of a distance runner. Myers was at his best from 300 yards to 1,000, and his 100, 800 and 1,000 yards' records still stand, though for twenty-three seasons athletes all over the world have assailed them in vain. After him, Dohm, Downs, Baker and Remington held the attention of the American sporting world, Baker being famous for his straightaway record of 47¾ seconds for the quarter-mile. In 1895, Tom Burke appeared as a champion, and he was about as good as they make them. He could sprint in record time, while on several occasions he beat 49 seconds for the quarter-mile, made new world's records for 500 and 600 yards and ran the half under 1 minute 56 seconds. In '96 and '97 he was closely followed by Maxey Long, who developed into the most perfect quarter-mile machine that ever appeared on a track. Long combined both speed, ease of action and endurance in the very best ratio for a quarter-miler. After winning a quarter-mile in 47 4-5 seconds on the New York Athletic Club fifth of a mile track in 1900, he tried the 440 yards straightaway and put up the wonderful record of 47 seconds

Fig. 2. Do not throw the arms across the body. Running is an endeavor to go straight ahead in the shortest possible time. This across-the-body-motion of the arms will not throw one forward and thus help the athlete to get a long stride, while it will have a definite retarding tendency by throwing the athlete off his stride.

flat. Long was the natural development of such a quarter-miler as Myers was and he seems to be about the acme of perfection for this distance.

Myers, Burke and Long are then the men most famous as quarter-milers, but there were numbers of other men deserving mention, such as Boardman of Yale, Shattuck of Amherst, Wefers, the world famous sprinter; Richards of Yale, and Hollister of Harvard. Indeed, a list of the men who have beaten 50 seconds for the quarter-mile would be a very long one, and it would prove that this is a distance in which Americans excel. Nothing more than some of the relay races of recent years would prove this. For instance, at the New Jersey Athletic Club games in the late '90s, the Harvard, Yale and Pennsylvania teams all finished under 3 minutes 24 seconds. In 1902, at the University of Pennsylvania relay races, Harvard equalled the world's record of 3 minutes 21 2-5 seconds, with the Yale quartette but four yards away.

HALF-MILERS.

But three names stand out prominently in the history of American half-mile running. They are Myers, Dohm and Kilpatrick. Hollister of Harvard would have been just as prominent had he not confined his running exclusively to representing his college. Myers has already been spoken of. The fact that he holds the 800 yards record of 1 minute 44 2-5 seconds and the 1,000 yards record of 2 minutes 13 seconds, shows what a fine half-miler he must have been. Frequently he ran the distance under 1 minute 56 seconds and he would probably have gone right down to the present world's record had he been especially trained for the distance.

Dohm was the idol of both the college and amateur world in his day, mainly because of the gameness which characterized

Fig. 3. Do not throw the foot out in front in reaching for the stride and then, as in the illustration, bend the ankle and knee down and chop the stride. This is one of the commonest faults of runners. The leg should be thrown out straight in front and the full length of limb taken advantage of. An athlete who has this fault should remedy it even at the risk of shortening his stride, for by chopping one's stride one not only loses length of stride but time is lost in putting the leg out and then drawing it back, which of course is what is done when the knee and ankle are bent downwards.

his running. He does not appear on the record books, but he ran under 1 minute 57 seconds on many occasions. He was followed by T. B. Turner, a sterling runner, and then there appeared on the scene, Charles Kilpatrick. In '94, he won the Intercollegiate championship and from then on his title was questioned but once. His work culminated in the international meeting between the London Athletic Club and the New York Athletic Club, in '95. He then defeated the fastest men of England and created a new world's record of 1 minute 53 2-5 seconds, which stands to-day. America thus has the credit of developing the fastest half-miler that ever lived. Hollister was running the same time as Kilpatrick. His most sensational race was against Kilpatrick in '95 at the Intercollegiate A.A.A. championships when he defeated him after a hard race through the stretch. The next spring, he made his best time when he created the present Harvard record of 1 minute 54¾ seconds. These men were followed by Manvel and Burke, both sterling half-milers, while Cregan also did some good half-mile running.

DISTANCE RUNNERS.

Mile running is now in a higher state of development than at any time in the history of American sport. Indeed, judged from the strictly national standpoint, there is very little for the athletic enthusiast of this country to crow over in surveying the championship tables of mile runners. If, however, we take the term American to include Canada, as it properly does, we shall not make so very bad a showing. Nothing special or startling was done by American milers previous to the advent of E. C. Carter, the famous Britisher. But though the records of the old champions, Lambe, Morgan, Fredericks, Madeira, etc., do not make a good showing, they do not indicate the real powers

Fig. 4. Do not run pigeon-toed or land with the foot on the outside edge. The foot should be planted squarely on the ground so that all the muscles of the leg are brought into play.

of these men. The ideas of training and the facilities for the same were not of the best, and in some cases the men could do considerable faster time than they were ever credited with.

But when E. C. Carter came out to this country in '86 more interest was taken in the sport, and in the next year he did 4 minutes 30 seconds, the fastest time that had been made in the championships up to that date. In '79, Pellatt of Toronto gave an indication of what Canada was to do later by winning the mile championship, but in '88, Gibbs of Toronto again startled New Yorkers by beating not only the Americans, but Carter, and A. B. George and Conneff, who had been brought out by the old Manhattan Athletic Club for the purpose of putting a stop to Carter's winning course. Gibbs defeated them decisively and had it not been for most unfortunate family troubles, Gibbs would, in succeeding years, have become a very famous runner. In 1890, in his training, he beat 4 minutes 20 seconds in a trial, only to be forced by a death in his family not to compete for athletic honors.

Carter then gave up mile running and George and Conneff fought it out with honors nearly even for Conneff was not then the peerless mile runner into which he afterward developed. In '02, another Canadian carried off the honors in the person of George W. Orton and for five years he won both the Canadian and American mile championships. We have already spoken of Conneff's wonderful running in '95. In '97 J. F. Cregan won. Cregan was the first native of this country to win the mile for eleven years. He repeated the trick the next year. The succeeding season another Canadian star loomed up and Alec Grant became champion. He has held the championship ever since, excepting in 1900, when Orton carried off his sixth championship in this event. Grant is the present champion, therefore, and he promises to develop into the best distance man we have ever

Fig. 5. Do not sway the body from side to side, and do not swing the arms up and down

had. Thus in the last seventeen years, the United States mile championship has been won only twice by a native of the country. This should furnish food for thought. But, as noted above, there are more good milers in the country to-day than ever before and all that it needs to make this country as feared in this branch of track and field sport as she is in all others is persistent and careful encouragement.

LONG DISTANCE RUNNERS.

The really first-class five and ten-mile runners that this country has produced can be counted on the fingers of one hand. Indeed, taking our English cousins as a criterion, W. D. Day seems about the only man who would take first-class rank. His two-mile record of 9 minutes 32 1-5 seconds, his ten-mile record of 52 minutes 38 2-5 seconds and his three-mile record of 14 minutes 39 seconds, show what a fine runner he was. Kanaly, Grant and Orton are about the only other men who showed ability to go fast over a distance of ground. It must be remembered, however, that both Carter and Conneff did magnificent work at both these distances from '86 to '92.

There are but two more distance events, the cross country championship and the steeplechase. In the latter, Orton showed himself a real champion by winning the American championship practically from 1893 to 1903, and in the meantime winning the event in England in '97 and the world's championship in Paris in 1900. Day, Carter and Orton were the leading cross country runners from the clubs, while in the colleges the past four years have developed very good men in A. Grant, J. Cregan, Franchot and Bowen.

Though the foregoing are the events that are found on our championship programmes, the Boston A.A. has for several years

Fig. 6. Do not swing the foot up too far behind. This is waste motion, and for that reason it should be avoided. The foot should be brought forward describing as low an arc as is consistent with getting the knees out for the next stride.

given a Marathon race of twenty-five miles. This has resulted in developing three or four long-distance men of the highest quality, the most famous of which is McCaffrey of Hamilton, Ont., Canada, the holder of the world's record for this distance and kind of race. Mellor of Yonkers follows closely in his footsteps and would probably have broken McCaffrey's record in the 1902 race had he been pushed all the way.

NOTE.—The reader will kindly pardon the recurrence of my name in the above brief review of distance running. A survey of the lists of American champions will show that I could not do otherwise if my review were to be authentic.—GEORGE W. ORTON.

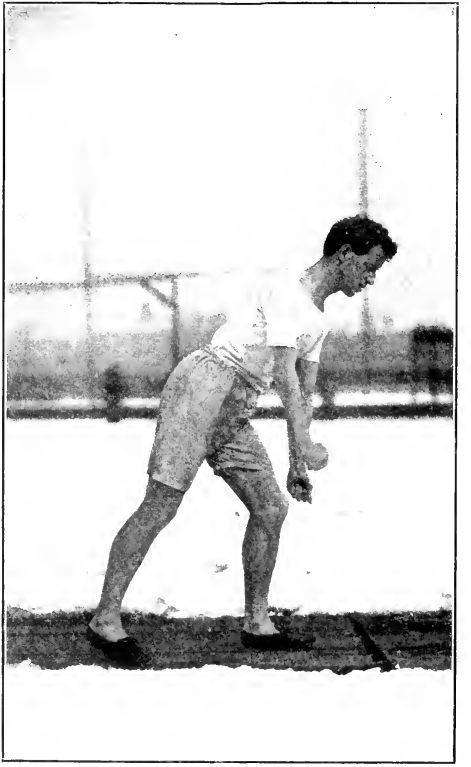


Fig. 7. Do not bend the body over too far, as this does not allow the legs to exert their full strength. It also throws the runner off his stride. It shortens the stride.

GENERAL RULES

There are various general matters which relate to all distance running and by stating them here, it will be unnecessary to do so in dealing with each department of distance work. First, the matter of developing good form should be carefully considered. The athlete should run naturally, thus allowing his muscles to get the reflex action which makes the athlete's task so much the easier and better. The muscles should not therefore be kept at high tension, but be allowed freedom of action. It is this tendency to run stiffly and artificially which has ruined many a promising runner. "Do not tie up," is one of the most frequent calls of advice which Murphy gives to his men when training.

The runner should have no lost motion. Any motion takes time and lost motion is thus merely lost time. Time is lost by many runners by making the foot describe a curve upward toward the thigh when bringing it forward for the next stride. The foot should be brought straight forward with the least possible curve. This flinging up of the heels not only takes time on every stride, but it is exhausting for the muscles of the leg, and thus is a double detriment and must be avoided.

Some athletes also lose time by hesitating to put the foot down smartly when it is brought forward. There is a perceptible pause between each stride. This may be only a hundredth part of a second, but in a long race it may be disastrous. But this is not the most common failing noticed in athletes when putting their feet down for the next stride. There are many who throw out their leg and foot in perfect form, but either by holding them-

L. E. MYERS

The greatest all-round runner that the world ever had. Myers had a style of his own, the like never equalled.

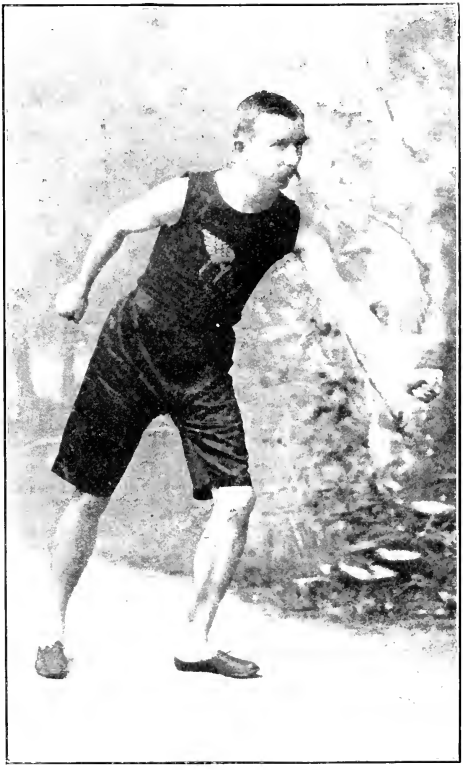
selves too erect or by a haste to finish their stride, they slightly bend the knee and thus shorten their stride. Again this may make a difference of less than an inch (though in many cases much more space is lost), but in even a quarter-mile, the accumulation of lost inches would mean quite a distance at the end of the race. It would mean yards in a mile and perhaps laps in a ten-mile race.

The leg, therefore, should be thrown out well in front and the full stride used, while no lost motion should be allowed in bringing the foot back at the finish of the stride. To carry this out the full leg will have to be used. Some runners make their upper leg do all the work, while others try to run using only the leg from the knee down. To get the full stride the high and the knees will have to be thrown forward.

The arms should be held in an easy position beside the body. They should not be kept tense, but on every stride they should be used naturally to aid the runner. By holding them up too high, with bent elbows, and by swinging them across the body, too much body motion is created, while this strained position has a tendency to make the athlete "tie up."

Do not lean forward too much when running. This will shorten the stride by driving the foot down to the earth. It is also a strain on the muscles of the back and abdomen and it does not allow these muscles free play. They are very important, as is well known. The athlete should lean forward slightly, so that the center of gravity of the body will be over the foot as it meets the earth on each stride.

Some athletes have the very bad habit of leaning back when running. This destroys the whole motion, as because of the angles at which the various tendons work with reference to one



E. C. CARTER, N. Y. A. C.

Winner of many distance championships from 1886 to 1894. Carter was a typical distance runner, being about 5 feet 7 inches tall and weighing about 125 pounds.

another, it makes the runner clip his stride in front and lose motion in bringing up his leg for the next stride.

The head should be held in a natural position. This is necessary if the respiratory organs are to be given full play. How important this is, every one will recognize at once. The failing in this regard is a tendency of many athletes to throw the head back. This shuts off the wind, and it is generally accompanied by "tieing up."

Many track athletes seem to forget that it is just as necessary to have a good heart, lungs, back and abdominal muscles as it is for the driver of a locomotive to have a strong boiler with which to generate its power and speed. Every athlete either by gymnasium work, by fencing, boating, sailing, hockey, or some other form of exercise should build up his body, so that the upper works will correspond to the lower. Even though the track athlete has a good body to begin with, he should take a little exercise, say with dumb bells, the punching bag or with the chest weights every day, so that this part of his anatomy will be retained in a high state of vigor. Those who have not a good body should be just as careful about this part of their exercise as they are about their real work on the track. Success cannot come without both, no matter how the result may be obtained.

The matter of diet in these latter days is a very simple question. Strike out alcohol in all forms; tobacco, except in very rare cases; highly seasoned dishes and pastry, and be temperate in the use of water (my Philadelphia friends will think this an unnecessary order), and you have all that is required. Putting the matter affirmatively, eat good meats, bread, milk, and all that is recognized as sound, healthy food. In other days, the athlete was kept on the sparest diet and was trained to a very fine point. The modern trainer gets the same results by

T. P. CONNEFF, N. Y. A. C.

World's champion mile runner. He is a typical distance man, being of slight but sturdy build.

keeping the man strong and always with a store of reserve power.

It is but common sense that should teach a man when beginning training to do easy and light work for the first few days. Many a strain is obtained by beginning fast work the first day out.

C. H. KILPATRICK, N. Y. A. C.

World's champion half-miler. He is a typical half-miler, being tall, strong, and with length of limb for a long stride.

MIDDLE DISTANCE RUNNING

All distance runners should make sure that the stomach is in good shape. This is absolutely necessary for any distance above the mile.

The half and the quarter are called the "middle" distances. The name is self-explanatory. The quarter partakes both of the nature of a sprint and a distance, the speed being the main element. The half-mile is also on the border between real distance work and sprinting, but here the staying qualities are the main desiderata.

THE QUARTER MILE

The kind of men best suited for the quarter-mile are those that have speed in the first place and a certain amount of stay. Our best quarter-milers have generally been men of about 5 feet 10 or 11 inches in height, sturdily built, and with a long easy stride. Such a man was Maxey Long, the greatest quarter-miler that ever lived. Many other fine quarter-milers have been built on the same lines.

There is another type of quarter-miler which is almost as common: men on the Myers or Burke style. They were tall and thin. They had plenty of speed and the very length of their stride made up for the lack of stay which would have been fatal in a shorter striding quarter-miler. It is rarely that we see a small man a first-class quarter-miler, but Long, now at Yale, and Holland, the present intercollegiate champion, are both small though very stoutly built. The first class mentioned are the best

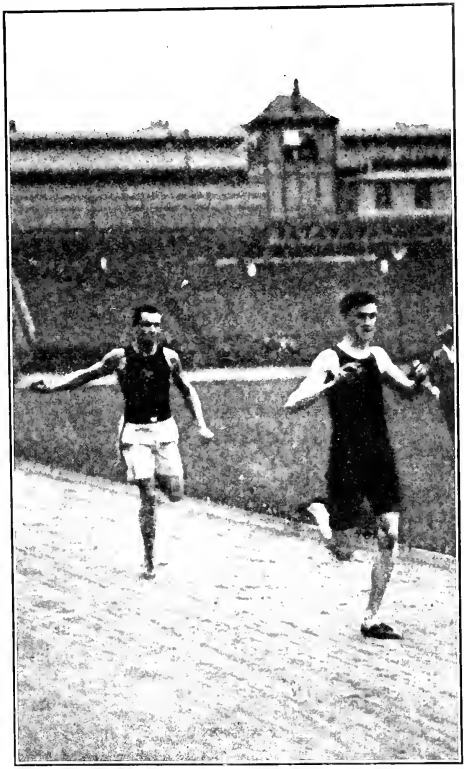
MAXEY LONG, N. Y. A. C.

World's champion quarter-miler. Record, 47s. Note the perfection of form, body slightly bent forward, arms and legs working straight ahead and no lost motion of the legs

built for the work, for they combine speed and stay in the most favorable ratio for getting the results.

We have said that speed is the most important part of the quarter-miler's equipment. He may have much stay, but if he has not speed he will not make a name for himself. This can be shown mathematically. The standard time for the quarter is 50 seconds. This means an average speed of 11.3 seconds for the hundred yards all the way, while Long in his famous journey run of 47 seconds in 1900 did 10.68 seconds for each 100 yards of his journey, truly a wonderful performance. Speed being necessary, the quarter-miler must do plenty of sprinting. Every day he should practice short bursts, and he should run through the 220 yards at racing speed occasionally. This work should be varied by longer dashes from 300 yards to the full distance. In this longer work, he should learn to start like a sprinter, and go right out the first 40 yards. This is very necessary, as on very many quarter-mile tracks, the quarter starts near the first turn. The speediest man will get the pole at this turn or at least a good position, while the slow starter, unless very lucky, will be bothered all the way around the turn; often be forced to run wide and thus waste much energy, and on this account he he will often lose any chance of winning the race.

After the first struggle for position, the quarter-miler should settle into a long, steady, fast stride, covering the ground with the least expenditure of energy. He should be able to maintain this gait until turning into the stretch, when it will probably be telling on him, and then it is generally a case of "devil take the hindmost," and get home as best you can. But if the quarter-miler can get away well, then settle into the desired long, easy swing, he will generally find that in the struggle for the tape the last 100 yards, he will have some reserve energy on which to draw.



"Tom" Burke beating out "Berney" Wefers in their famous race at the A. A. U. Championships in 1896. Burke's time was 48 4-5s. on a poor track. Both were tall and very fast sprinters.

If, on the other hand, the runner goes out too fast for the first 200 yards, so to speak, fighting for his head all the way, he will generally find the last part of the race like climbing a precipice. Thus after the first burst at the start, the quarter-miler must learn to run with a little power always held in reserve. How near he can come to exhausting this reserve, he alone can tell, and a few races should teach him this.

As the quarter-mile then consists mainly in the long, steady, fast stride which covers the ground from the first 40 yards to about the last 80, the young quarter-miler should develop this gait. He will find that the only easy way to go fast is by having speed in reserve. For instance, Wefers, the great sprinter, never trained for the quarter, but he has beaten 49 seconds for the distance. This was due solely to the fact that the long, easy, fast gait for the quarter-miler seemed easy to him probably for over 300 yards; it then began to tell, but he was able to maintain it until his natural speed and grit brought him home in fast time. The quarter-miler must then work for this gait and this can best be done by 300-yard runs or by pacing through quarters at three-quarter speed.

There is one thing, however, which every aspirant for quarter-mile honors must learn for himself. It may be that he has speed. As noted above, so much the better. But he may not have the required stay. In that case, he will have to do longer work, occasionally running 600 yards, or even a half-mile. But he must pay attention to his speed at the same time or he may get more stay, have less speed, and be just as poor a quarter-miler as in the first place. If, on the other hand, the athlete has plenty of stay, but lacks speed, he should, of course, pay all the more attention to developing speed.

The above are the general features which should be looked to

H. E. MANVEL, N. Y. A. C.

Champion 880 yards, 1899. Manvel is a good type of half-miler, being about 5 feet 11 inches tall and weighing 160 pounds in condition.

in training for the quarter-mile, but many other small things may enter into the question. The athlete should see to it that he keeps his body in good shape, and that he takes special exercises for his chest, back and abdominal muscles, so that he will have the driving force and the nervous energy which often wins races when the leg muscles have done their best and that part of the athlete's system is practically exhausted.

It is always a dangerous matter to reduce training to a definite point, for the simple reason that what is one man's meat is another man's poison. For this reason, I hesitate to prescribe any daily routine of work. But for the benefit of those who have no trainer to look after their peculiar wants and needs, I shall give the following as a schedule of training for a week.

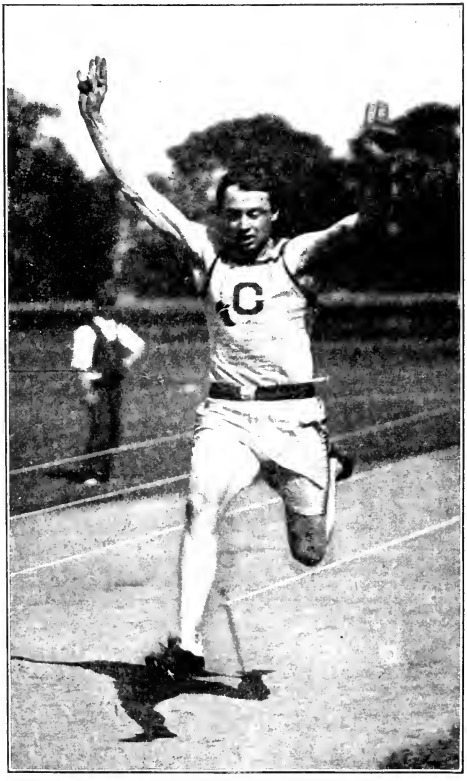
Monday—1. Several short sprints away from the mark. 2. Run through the quarter, starting as fast as in a race, and then striking a long, swinging gait. Carry this pace all the way to the tape, but not so fast as to be distressed.

Tuesday—1. Sprints as on Monday. 2. A 60-yard dash. 3. Run 300 yards, starting out at your best speed the first 40 yards; then settle into a long, swinging gait at quarter-mile racing speed. This will give you the pace without punishing you.

Wednesday—1. Sprints as usual. 2. Go through 200 yards at a fast gait, paying especial attention to stride. 3. If not tired, run a very easy quarter.

Thursday—Do the same work as on Tuesday, omitting the 60-yard dash if not in fine fettle, that is, if not feeling in running humor.

Friday—1. Sprints as usual. 2. Go all the way through the quarter trying to develop the long, fast, ground-covering gait that is so necessary for quarter-mile running. Do not sprint at the finish, and do not run so fast as to be distressed.



B. J. WEFERS

World's champion sprinter. Records: 100 yards, 9 4-5s.; 220 yards, 21 1-5s. (world's record); 440 yards, 49s.

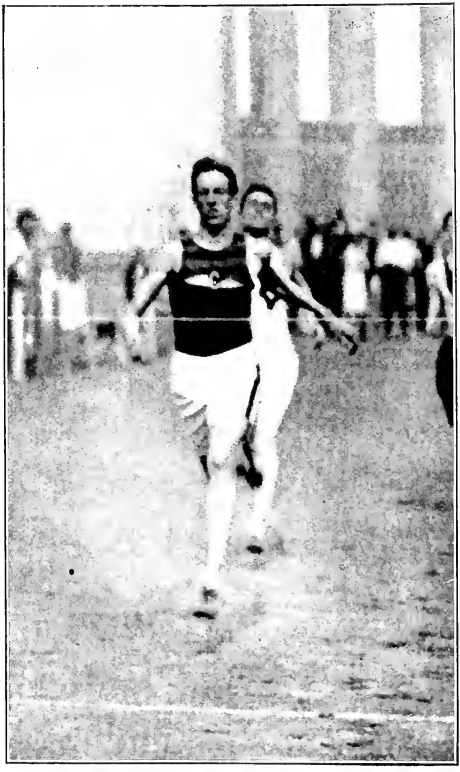
Saturday—1. Limber up. 2. Go the quarter at racing speed.

Many things may make the above schedule unfitting for certain athletes. The man training for stay should do longer work than is mentioned, while the stayer should do more sprint work than is given. Bad weather may interfere. My rule is to do my long distance work on rainy days. It is dangerous to sprint on a soft track.

THE HALF MILE

As already noted, the half-mile up to this time has seemed about the limit for successful American athletic effort. In this event, America has had some of the best performers known to the athletic world. Charles Kilpatrick, whose world's record still stands, was the best of them all, but there were many others. The best of these men were tall and with a good reaching stride. They could all run the quarter well and most of them could have run a good mile. Kilpatrick has run the mile in 4 minutes 25 seconds, while I have timed him a quarter in 50 2-5 seconds. The tall, long-striding athlete is the best fitted for this distance. This event is still one in which speed plays a part, though it is not so important as in the quarter. In that event, a man must be a fine sprinter to go the distance in championship form. This is not necessary for the half, but more stay is required. Here the athlete must have the latter quality or he will peter out the last 80 yards and finish in poor time.

Just as in the quarter, stride is one of the first requisites for the half-miler. He must develop his stride so that he gets the most distance possible with the least expenditure of energy and without overstriding. Overstriding at any distance is very exhausting. The half-mile gait is quite fast and the best way to develop it is by practice and the acquiring of an ability to go



KANALY,
The 5-mile champion, 1901. Note his fine leg action.

considerably faster when pushed. The faster quarter-mile a runner can go, the easier he will hold a fast gait for the first quarter of the half. It is necessary to go fast the first quarter, if the best results are to be obtained. For instance, in running a two-minute half-mile, the first quarter should be run in 57 seconds or a trifle better. The gait of the first quarter should be maintained until the last 220 yards is reached, when it is a case of trying to get further up on the toes for the sprint home. It is often very difficult to get up on the toes when one has run the first 660 yards at racing speed, but a conscious effort must be made to do so, as, if accomplished, the muscles are acting at different angles and parts that have not been at tension are put to work and the athlete seems to gain a new lease of life. Of course, it is often impossible for the athlete to sprint, as the muscles are too tired to respond to the call made upon them by the determined athlete.

The runner may lack stay. In that case he will have to do longer work than the half. But he should not neglect his quarter-mile work and his sprinting. If, on the other hand, the aspirant for half-mile honors has plenty of stay but not the necessary speed for the quarter, he will have to do more sprinting and quarter-mile work than otherwise. In fact, the great majority of runners training for the half-mile seem to forget the speed part of their work. We see them day after day running their distance, sometime shortening their work to the quarter, but never sprinting. Speed is the one thing which should never be neglected.

The half-miler should then make sure that he has the stay. He should take some sprinting nearly every day and he will find that an occasional 220 yards at racing speed will develop his speed. He should then try to develop his stride or half-mile gait. He can do this by running through quarters at a fast gait,

WORKMAN, Cambridge.

International college champion. Note his poor arm action. Despite this fault, Workman was the finest English distance runner ever sent over by the colleges.

while he will find 600 yards the most useful distance in his training. He can go to the 660-yards at racing speed and not find it too exhausting. This, with an occasional half-mile, right through to the tape should get him into shape to do his best work.

As in the quarter, the half-miler should pay attention to his body, as the speed is so great for such a long distance that very strong heart and lung action is a necessity, while the back and abdominal muscles must be able to do their share of the work.

The remarks relative to making a schedule for the quarter apply with equal force to the half, but for the same reason we shall risk criticism by giving the following work for a week:

Monday—1. Sprinting in short bursts. 2. 440 yards at half-mile racing speed, continuing another quarter at an easy pace with a sprint home the last 40 yards.

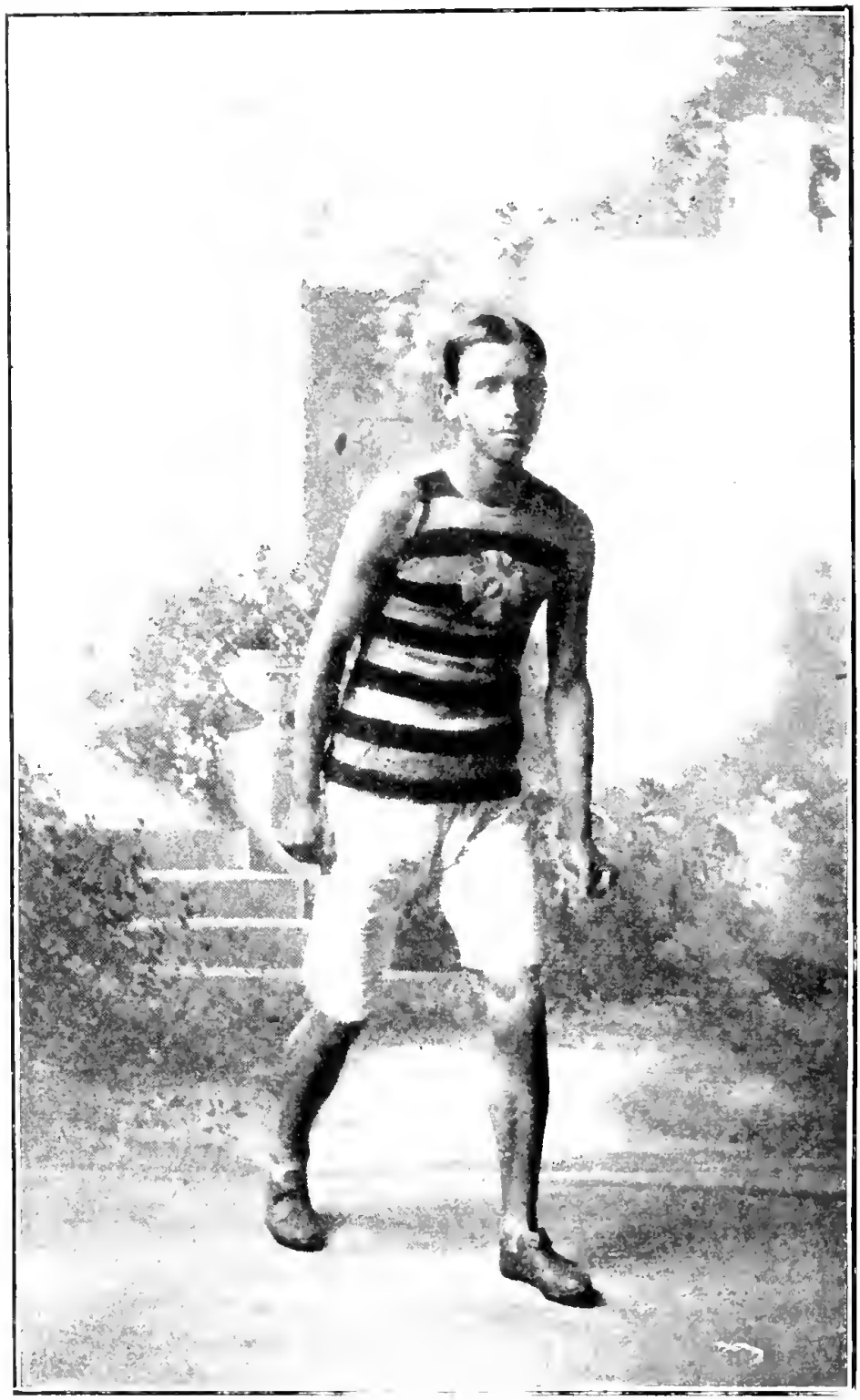
Tuesday—1. A little sprinting to limber up. 2. 220 yards at a fast long striding gait. 3. After a rest, run through not more than 660 yards, at half-mile racing speed, continuing to the finish at a very easy pace.

Wednesday—1. A fast quarter. 2. Some easy jogging work, with a burst of speed at the finish.

Thursday—1. The same as Tuesday.

Friday—1. Run 1,000 yards, going the first quarter at half-mile racing speed and then maintaining a good steady long stride the remainder of the distance.

Saturday—1. Run a 660 yards or half-mile trial, or, better, get into a race, if possible.



JERRY PEIRCE

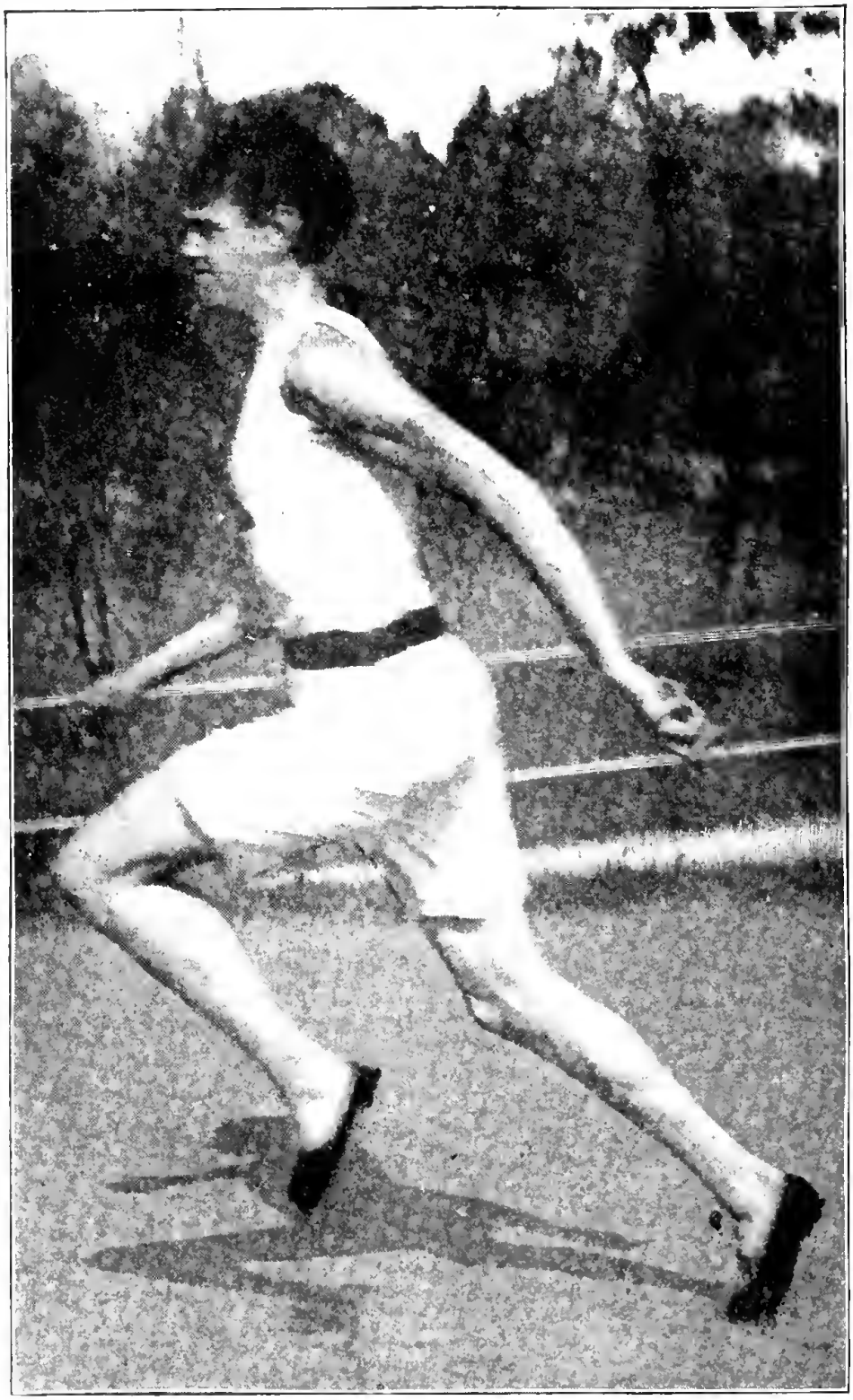
The Indian runner. Peirce has proven himself the past two years a sterling runner from one to ten miles.

DISTANCE RUNNING

THE MILE

We now come into the domain of real distance work. The basis and the great necessity of the distance man is stay. He must have this or he is no good. Stay is but a synonym for stamina or strength, and this can be obtained only in one way and that is by work. Of course, some men are more naturally gifted by nature with staying qualities than others, but every one can obtain them if they merely wish to do the required work, it being presumed that the man is sound in wind and limb. This fact is better known in England than it is here. There it is no uncommon sight during the fall and winter months to see a cross-country pack of one hundred or two hundred men and boys making across the country and all enjoying the run.

The basis for all success in distance running is "work." This must be done either through persistent effort or through one's liking for the game. All the best men that this country has produced have been noted among their fellows as persistent workers. Tommy Conneff, the world's record holder, could do more distance running in his training than any one I have ever known. Mike Murphy has often told me that he could not give So-and-So as much work as he was giving me because he could not stand it. By the above I do not mean that the aspirant for distance honors should come in every day nearly dead with fatigue, nor that he should run a very long distance every day. But he must keep at it and see to it at the same time that he is strengthening every part of his upper body.



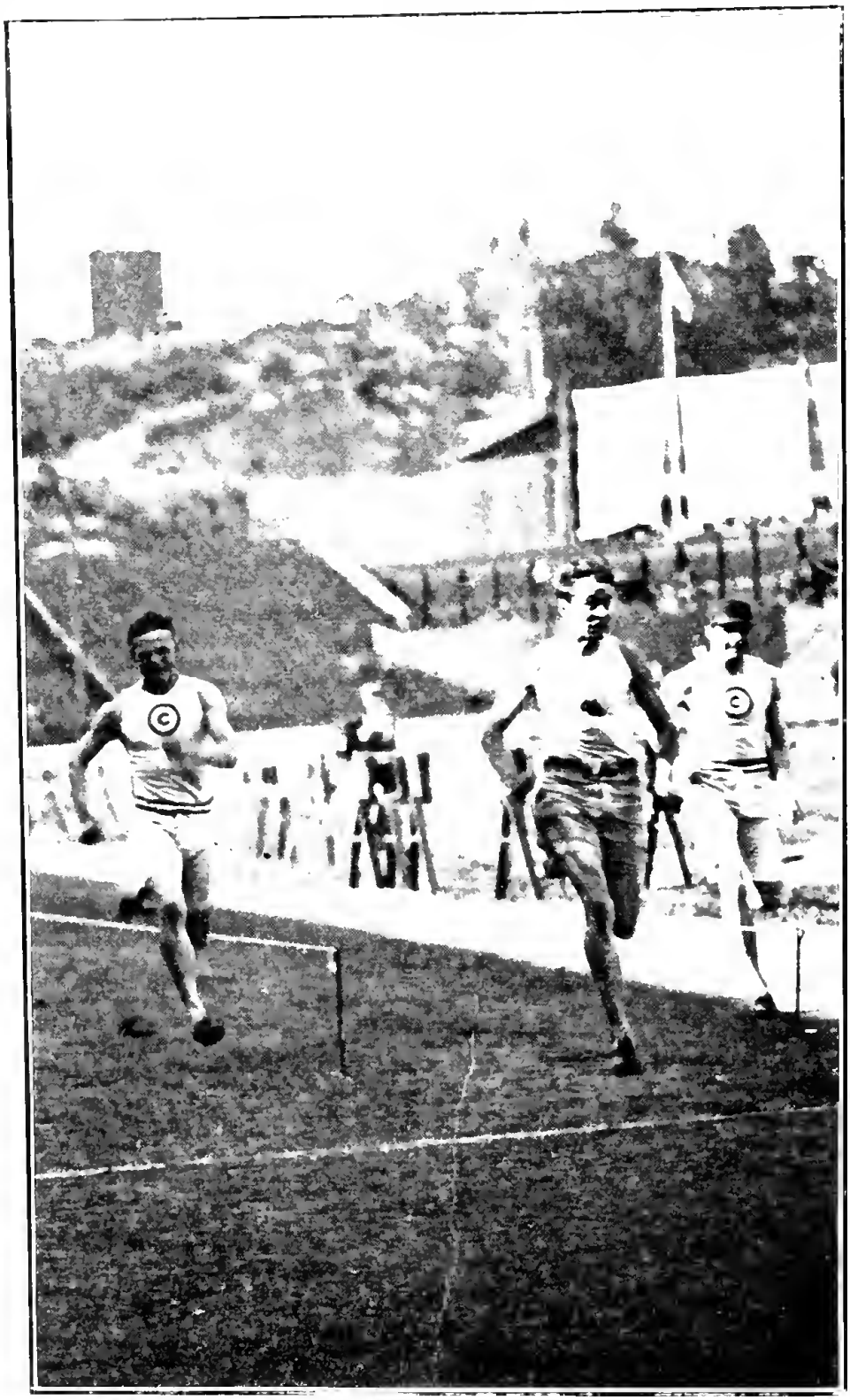
T. E. BURKE.

Good action.

The youth cannot do better, in preparation for his distance work, than to engage in all kinds of hardy sport and to get in some cross-country running. In fact, the best way in which to prepare one's self for distance running is to begin cross-country work. If the real country can be found this is quite enjoyable and it soon develops the staying qualities to a very high degree. The athlete can then come on the track and with a few weeks' training get into shape for a good mile.

The young miler should try to develop an easy gait. He should pay attention to his stride, but he had better have his stride too short than too long, for overstriding in distance running will soon put the athlete out of the race for honors; but by carefully watching his stride and consciously trying to develop it gradually, the runner will find that he can lengthen it out and still run with his former ease. This will, of course, be an immense gain for him, for even though he should lengthen it out but a fraction of an inch, this will make yards difference in a mile. But, again, the runner must not develop ease of gait at the expense of a loss of power, either in his leg or arm motion. I am afraid that there is a tendency to do this in America, especially in respect to the use of the arms. The English runners make much more use of their arms than do the American runners. The arms should be swung so that they aid or lift the runner on every stride, but this motion must not be so strong or jerky as to jar the action of the heart and lungs.

Together with ease of gait—and in fact a part of it—is a runner's ability to run fast without "tieing up," as they say. The muscles should not be kept at tension except at the end of the race, when they will naturally tighten up under the severe strain laid upon them. Everything should move freely and



RUSH, Chicago. WEFERS, N. Y. A. C. CRUM, Chicago.

Wefers winning the sprint in the A. A. U. Championships. Note that both Wefers and Crum have perfect arm action, while Rush has the fault of throwing his arm across the body.

with a natural reflex action. Many runners have the proper leg motion, but their arms and bodies are kept at tension from the very start of the race. This not only quickly tires the muscles but it retards the action of the lungs and to a less extent of the heart. This is diametrically opposed to the principles of running which, to a great extent, depends upon the rythm of action that is maintained between the legs, arms and so on of the runner on the one hand and the heart and lungs on the other.

This means that the strength of the heart and lungs must correspond to the power of the legs, etc. Easy cross-country work is, as stated above, a great developer of the heart and lungs. They can also be strengthened by steady work in the gymnasium or by steady gymnastics of any kind.

But though the mile is a real distance event, it cannot be run in championship form unless the athlete has some speed. W. G. George, Conneff, Binks, Welsh, Bacon, all of whom at one time or other have held either British or world's records for the mile, could run the half-mile considerably under two minutes, which is certainly a guarantee of some speed. This being the case, the miler should do some sprinting, and some smart 660-yard work he will find very valuable in making him regard the mile pace as easy. Also, by taking 660 yards work in his training, he will get into the habit of running the first part of his mile fast. The miler should even take a fast quarter now and then, and a run through the 220 yards will help him develop his sprint for the end of the race. If one has the speed it is then possible to get up a good sprint at the finish, while if the speed is not there, the runner will finish poorly in any case. I lay stress on this speed side of distance running mainly because we see so many mile runners pegging away day after day at their distance, and

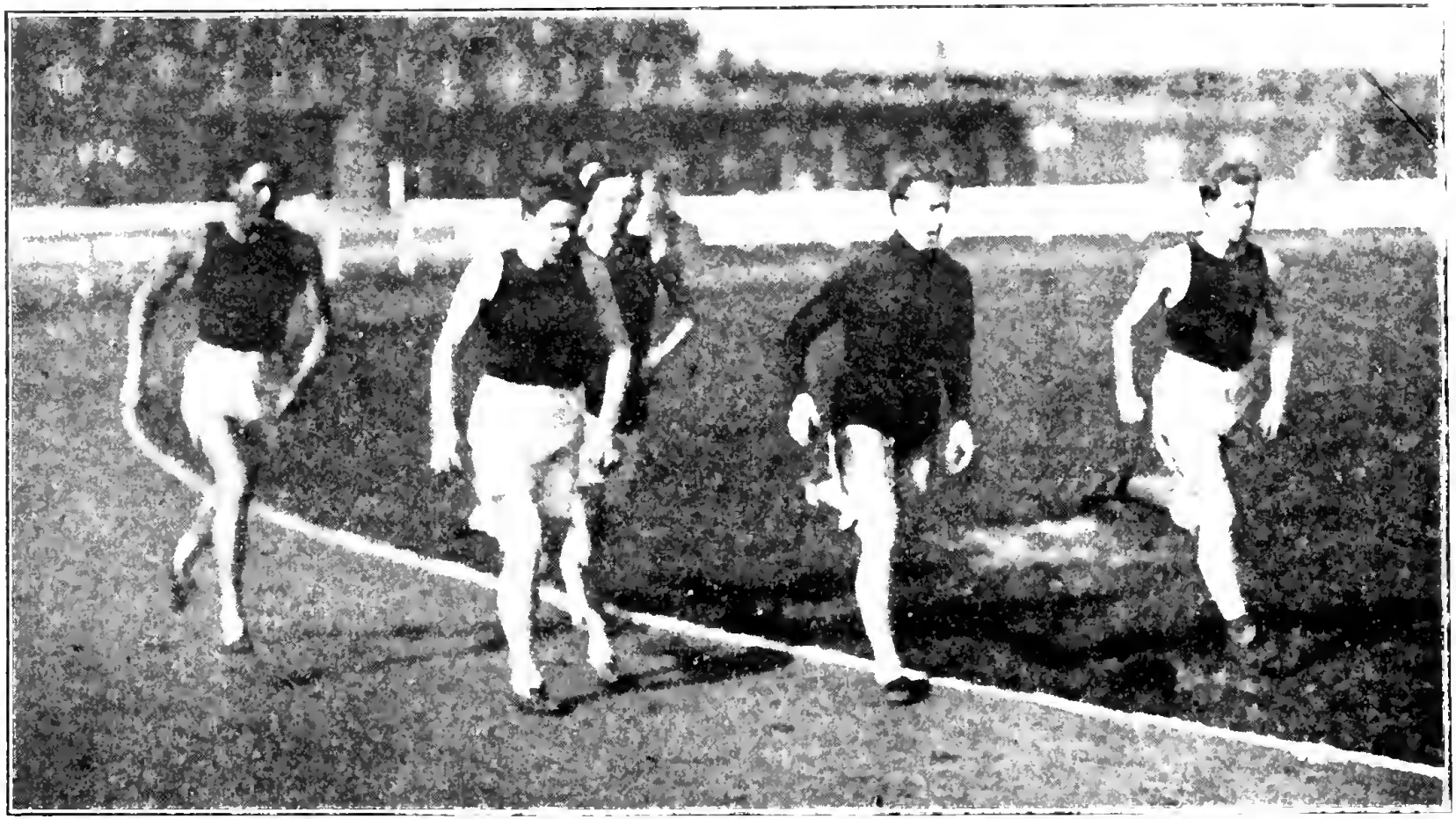
GREGSON CAWTHRA WORKMAN COCKSHOTT

English college distance runners. Note their poor arm action, but the suggestion of strength in all of them. Their records are very good. Gregson, 1mile, 4 m. 19 4-5 s.; Cawthra, 1 mile, 4 m. 30 s.; Workman, $^1/_2$ mile, 1 m. 54 2-5 s ; Cockshott, 1 mile, 4 m. 21 2-5 s.

rarely trying to develop any speed. The principle is the same as in the quarter and half. If the miler can run a quarter in 53 seconds he will in that case be able to go the first quarter of his mile in 62 or 63 seconds and not feel the pace too much. On the other hand, if he cannot run the quarter better than 58 or 59 seconds he will find the above first quarter altogether too fast for him.

But though it is important not to neglect the speed department of mile running, in no case must the athlete make his whole work consist of this. He should go through his distance practically every day though (except when having a trial or in a race), he should not distress himself. He should always come back to the training quarters feeling as if he could have run more and as if he wanted to run more. It is often a good thing to run two miles occasionally, while every trainer will send his milers through a three-quarter mile run now and then to get them accustomed to the mile gait. One can run the three-quarters at mile racing speed without unduly fatiguing oneself.

It is thus incumbent on the aspirant for mile honors to see that he has the stay for the full distance and sufficient speed so that he can maintain a fast gait. Having done this, or rather while doing this, he should be learning the pace that he can stand. There is no regular distance on our athletic pragramme which offers the same opportunity for head work as the mile. The basis for this head work is a practical knowledge of pace. It is absolutely necessary to know one's own capabilities and to be able to judge at what pace the race is being run. After one has mastered one's own capabilities one can make this of use by watching the others in the race and, if possible, running them off their feet.



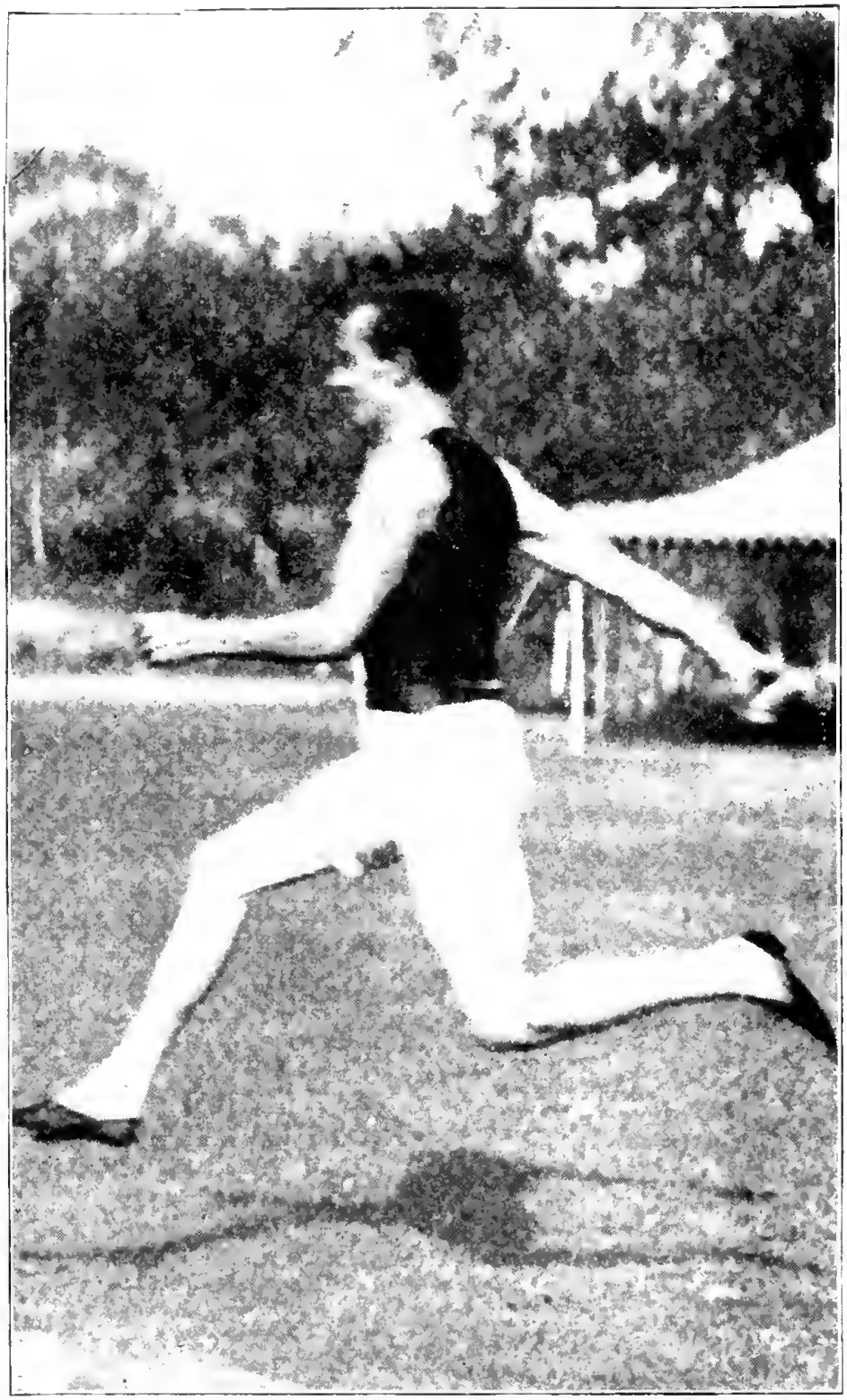
A. C. BOWEN. A. GRANT. G. ORTON.

Pennsylvania distance runners. Note the style of Grant especially. Both his arms and legs throw him straight ahead, and there is no lost motion.

The distances up to the mile are so short that it is a case of dash from start to finish. In the mile there is always a place where the distance runner feels so tired that he wishes to stop. But if he keeps on, he will recover, and probably run the last hundred in good time. The athlete must know enough not to force himself too much when he reaches this stage of fatigue in his mile, for if he does he will not recover and he will finish in very poor form.

Mile runners have often discussed the best way to run the distance. Of course, every one has his own special ideas, but they all seem agreed that when in shape, the first quarter should be run fast, say somewhere close to a minute. By doing this the miler makes the most of his natural speed. He should then keep up the gait, so that on reaching the half he is getting rather tired. Somewhere during the third quarter, or it may be near the beginning of the last quarter, he will strike the place where he is about willing to cry quits. But he must then fight off his exhaustion and summon all his strength for the final effort. If on his last quarter, he can change his gait, get up on his toes and sprint, using his hip muscles to their full extent, he will find that he can work up a very good spurt. The length of this spurt will depend on the runner. Conneff once stated to me very briefly the way in which he ran the mile: "I go the first quarter on my speed," said he; "by the time I reach the half I am getting quite weary; at the three-quarter pole I feel dead to the world, but I go another quarter because I have to and because I make myself do it."

It has only been the last few years that trainers have been teaching their milers to change their gait the last quarter mile. The principle of this is that by doing so the athlete uses muscles that have not as yet been brought into play and even those



B. J. WEFERS, N. Y. A. C.

World's champion sprinter. Good example of straight arm movement and of not allowing the heel to come up too far behind.

which he has been using are set at a different angle of tension, and thus made to react more strongly and quickly. Some distance men do this naturally, others can be taught it, while still others seem never to be able to master the trick. I have noted that generally those who could not be taught it were runners who could not sprint even when fresh. This simple factor in distance running practically won the two-mile intercollegiate championship for A. C. Bowen, of Pennsylvania, in 1902, while it changed Aleck Grant from a good distance runner into one of the fastest men we have ever had in this country. He has now mastered the principle and it accounts for the speed which he gets up the last 300 yards of his races.

The following schedule for a week of mile training is given, though in this event, even more than in the quarter and half, a very great deal depends upon the individual athlete and his gait.

Monday—1. Limber up with three or four short dashes. 2. Run through the mile, going the first 1,000 yards at your best mile gait.

Tuesday—1. Go a half mile at your best mile gait, then ease down and jog another half, sprinting home the last 60 yards.

Wednesday—1. Do some sprinting, finishing up by a 220 yards dash. 2. After a rest, jog a mile and a half at an easy gait, paying attention to stride and general form.

Thursday—1. Run 660 yards at a fast gait. 2. Jog a mile after a rest, spurting the last 60 yards. This can be made three-quarters of a mile if the runner so desires.

Friday—1. Limber up by some short dashes. 2. Run a mile, keeping up a steady gait for the first three-quarters, and then try to gradually increase the speed until the last 100 yards is

C. H. KILPATRICK, N. Y. A. C.

World's champion. Record: 880 yards, 1m. 53 2-5s. (world's record). Note how hard he is trying.

run at a quarter-miler's gait. In other words, try to change your gait the last quarter.

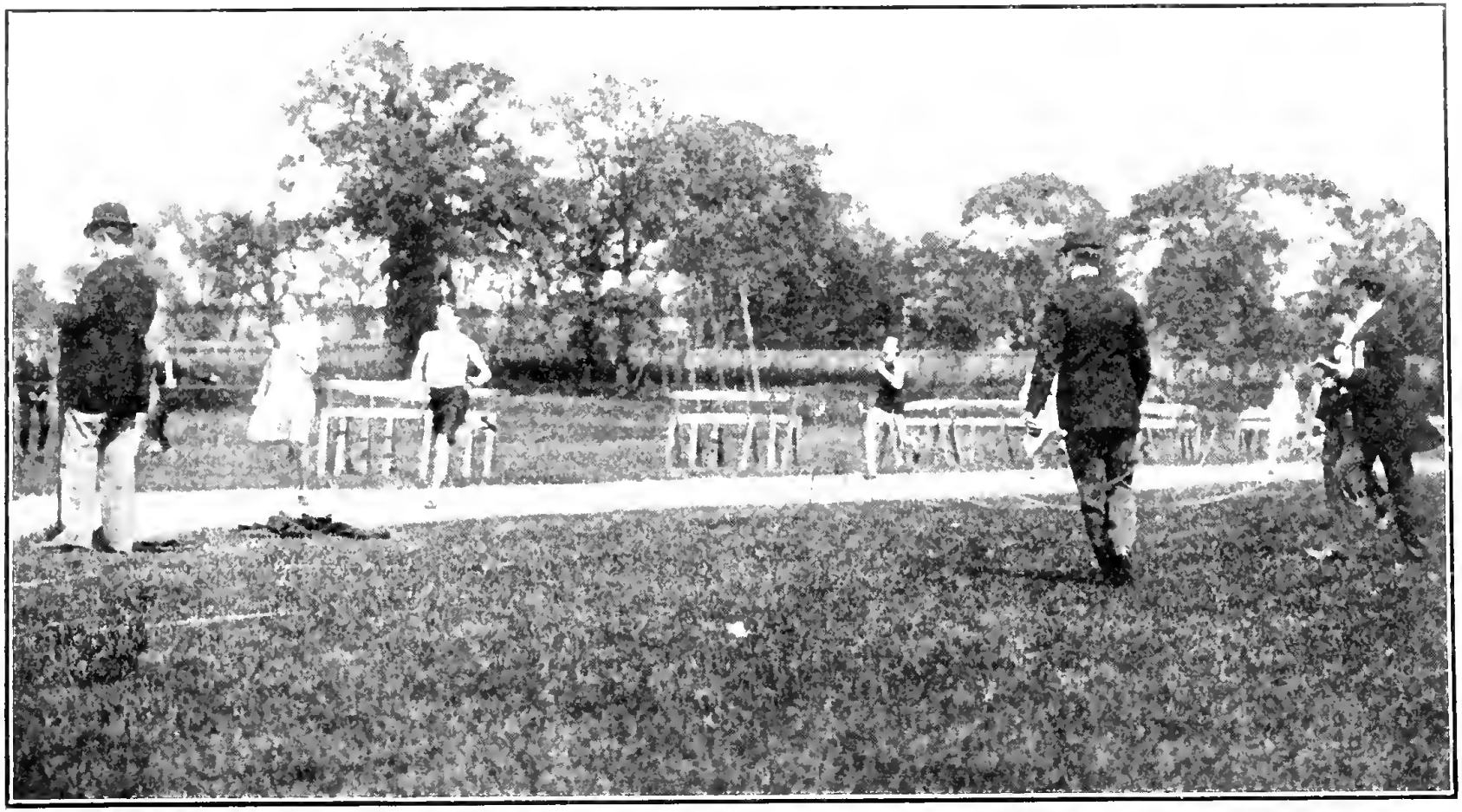
Saturday—Run a mile on time or get into a race for the distance.

NOTE—Some distance men prefer to do their sprinting after they have had their regular distance work. Let each runner suit himself in this matter.

THE LONG DISTANCES

The longest distance that we have on our athletic programmes is the ten-mile run. We also have three and five mile races. Much of what has been said regarding the mile applies with equal force to these distances. Here the staying qualities are more prominent than ever and no success can be obtained unless they are in the runner's make-up. A basis for success in these distances can be very well attained by easy cross-country work. Workman, the great English distance runner, who ran so remarkably well two years ago against Yale and Harvard, in discussing the great superiority of the English distance men as a class, put the matter in a nutshell when he said: "The chief reason why we have so many first-class distance men, as compared with America, is because we are brought up to run distance from our early youth. Paper chasing and regular cross-country work are practically a part of the early education of the English schoolboy, and they are all able to go a distance. There is no wonder, therefore, that when these boys become men, scores of them develop into fast distance runners, while every now and then a real champion comes to the front."

The encouragement that has been given to distance running the past five years by the colleges has already borne fruit in



C. HOLLISTER DEFEATING CHAS. KILPATRICK,

In the Intercollegiate half-mile championships, 1895. Both are sprinting fast for the tape. In the Fall of that year Kilpatrick made his world's record of 1m. 53 2-5s. Note that both are tall and long-striding. Hollister holds the college record at 1m. 54 3-5s.

the development of quite a number of good milers and two-milers. The schools are taking up the sport, and if it becomes general, it will not be long until America has some men worthy to rank with the best that England has produced.

In training for any of the above distances, the runner should hardly go the full distance every day. He will find that too exacting in our climate. But he should average at least three-quarters of the distance. By running out the full distance once a week and going over it another day, he will find that in a race he will go through the full distance in good form.

There is one thing that every long distance runner must cultivate, and hat is an even or steady gait. The heart, lungs, legs, arms, and, in fact, the whole body, should move together as one harmonious whole if the best results are to be obtained. If the athlete runs irregularly and not at an even pace, he will find that he will not attain his best speed. The first half mile of the five or ten miles the runner may go at a fast gait and then settle into a steady pace. Shrubb of England, the greatest five and ten mile runner living to-day, runs very steadily, but he has a fashion of varying his gait for about two quarters in the ten miles. He does this to limber up his legs and to produce a more powerful circulation, but outside of this peculiarity, which other distance men have had and for the same reason, he must be called a very even gaited runner.

The ten mile runner must understride if anything. He cannot keep reaching out, as in the mile, for that is too exhausting. He must run as naturally as possible, depending on his staying qualities to make time. Here the muscles must not tie up, as that will prove fatal. This has reference both to the arm and leg muscles and it is really contained in the above admonition to run "naturally."

GEORGE SANDS, N. Y. A. C.

440 yards runner. A good example of long striding, though the leg is a little too far up behind.

I shall give no schedule for these distances, as it is unnecessary. The great fault of the American aspirants for long distance honors I have found to be a disinclination to go far enough in their training. One must get used to the distance, and if one is careful not to exhaust oneself it is better to run too far in training than not far enough. If the runner does not run far enough, on the day of the race he is quite likely not to finish. On the other hand, if one has run too far, one will be able to go through the whole distance strongly if not so fast.

In running five and ten mile races, the runner must develop a steady, fast pace. This he will find exhausting for the first three miles, but if he has the right basis for distance work in his composition, the pace will then become to a great extent mechanical. One cannot obtain this mechanical pace if it is necessary to force oneself the whole way, and there is only one way in which it can be gained, and that is by constant practice. From the above, one can clearly see that the aspirant for long distance work must not take up the game unless he is very enthusiastic or enjoys running for itself. The reason for this is that there is not one runner in a hundred or even a greater percentage who has so much natural speed over a distance that he does not need to work hard and do lots of running. On the other hand, there is no event on our programme in which we find so many men who have brought themselves to a high state of development merely through consistent and steady practice backed only by very moderate natural ability.

G. HOLLANDER, K. A. C.

Is the runner to the left of the picture. Hollander ran in Kilpatrick's time, and though second to him on many occasions, he was a very fine half-miler, as he has done 1m. 57 1-5s. Note that he is a long-strider and a powerful runner.

CROSS COUNTRY RUNNING

Cross-country running is the basis for all distance success, but it does not naturally follow that all fast cross-country men make good track men. Such is often not the case, though the fast cross-country man invariably makes a fair distance track runner merely because he can go the distance at a fair gait. The reason why many cross-country men have failed to be successful on the track is because the cross-country gait is not quite the same as the distance runner's gait, and there are opportunities in cross-country running of resting or using one's strength which do not occur in a distance race on the track. The ideal cross-country gait is a very loose one. The runner must run with the easiest gait he can assume. If he runs with his muscles as tense as he will naturally do on the track, the inequalities of the ground will be continually throwing him off his stride and jarring his lung and heart action. He must run so loosely that if his foot hits a stone or a hole, his muscles then respond and he runs on without breaking his stride or jarring his body. He will often find that by cultivating this looseness of stride, he will be enabled to cross stony ground or come down rough hills at a good speed without any great danger of straining a tendon or ankle. On the other hand, if the runner's muscles are tense, he will find himself compelled to slow up on bad ground or run great risks of a strained ankle or a broken tendon. The cross-country runner must also learn to use his arms cleverly, for even when running loosely, it will be found that if a man is to make any speed over the ground, he will be

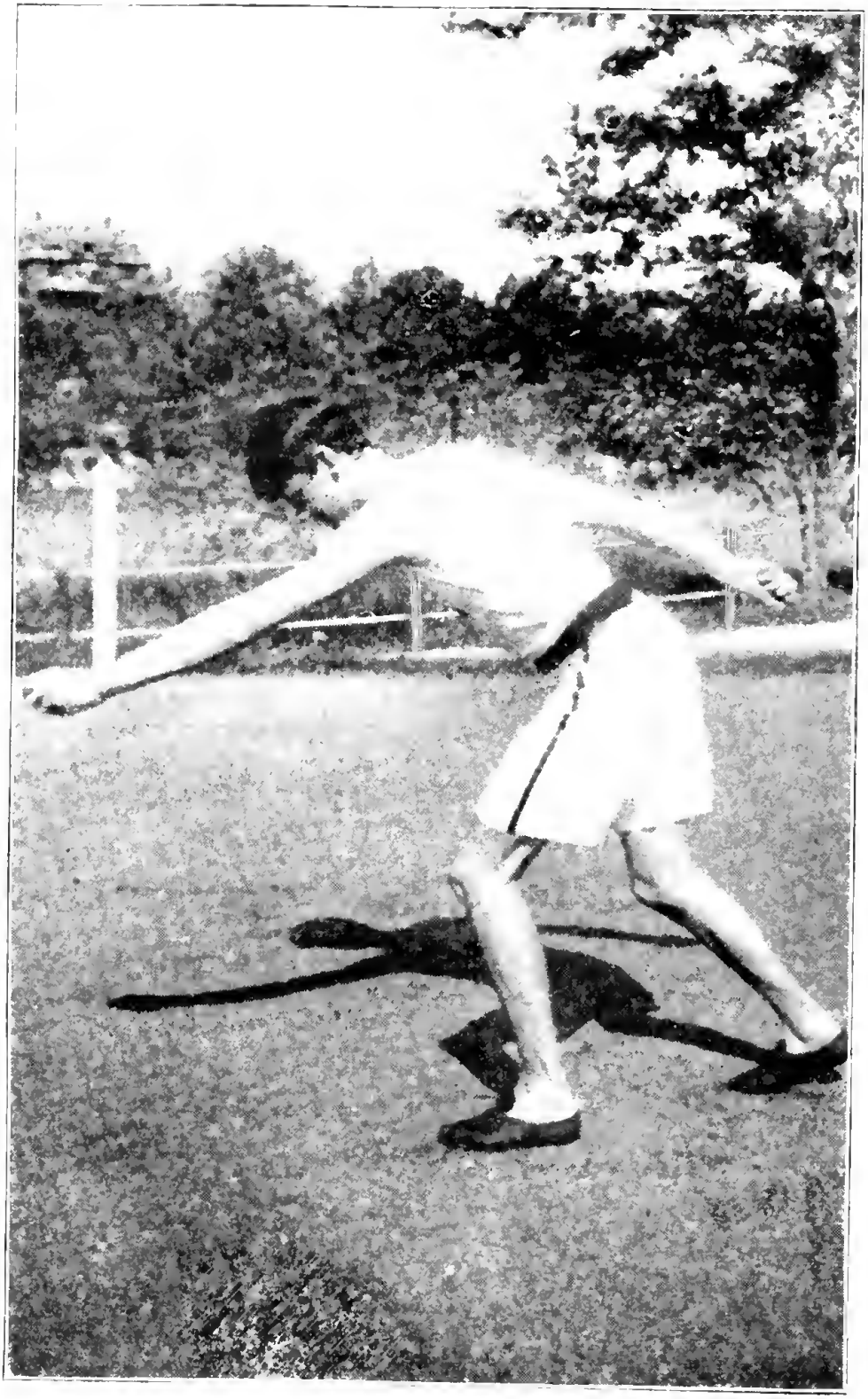
GEORGE W. ORTON, N. Y. A. C.

World's champion steeplechaser. Between strides. Note that the rear foot is being brought straight forward.

thrown off his stride occasionally. By holding the arms loosely but ready, one can often fall right back into one's gait, or so to speak, "pick oneself up" without losing a stride.

The standard distance for the cross-country is ten miles in England, but we have generally had our championship contests from six to seven miles. The intercollegiate championship is six and one-quarter miles in length. Here also one should average at least three-quarters of the distance in training. Personally I prefer in training for cross-country work to run only five times a week and then to go practically the full distance, varying the pace to suit my needs. The other days I walk the distance, but not in training costume, I merely do not ride those days and take my walking exercise as I go about my daily duties. This is the plan that many English runners pursue, as it is found that cross-country work every day is a little too much, especially if one is busy studying or is otherwise engaged, as is almost invariably the case in America.

Cross-country running is the most pleasurable form of distance work. If possible it is best to get a number to run together. For three or four days in the week the whole pack can go together, led by a man who has sense enough not to get them racing. Then, about a mile or a mile and a half from home, on the return, the men can be lined up and allowed to race the remainder of the distance. If one wishes to try out the men, it is best to do so by handicaps or by dividing the men into two or more packs, according to their speed. A very great deal of the pleasure in this work will depend upon the leader, and it is an essential that this position should be given to a man who will watch his pack and run at such a speed that, although there is no loafing, the run will not be a race. This is the best plan, even when training for a cross-country race, for by oc-



T. E. BURKE, N. Y. A. C.

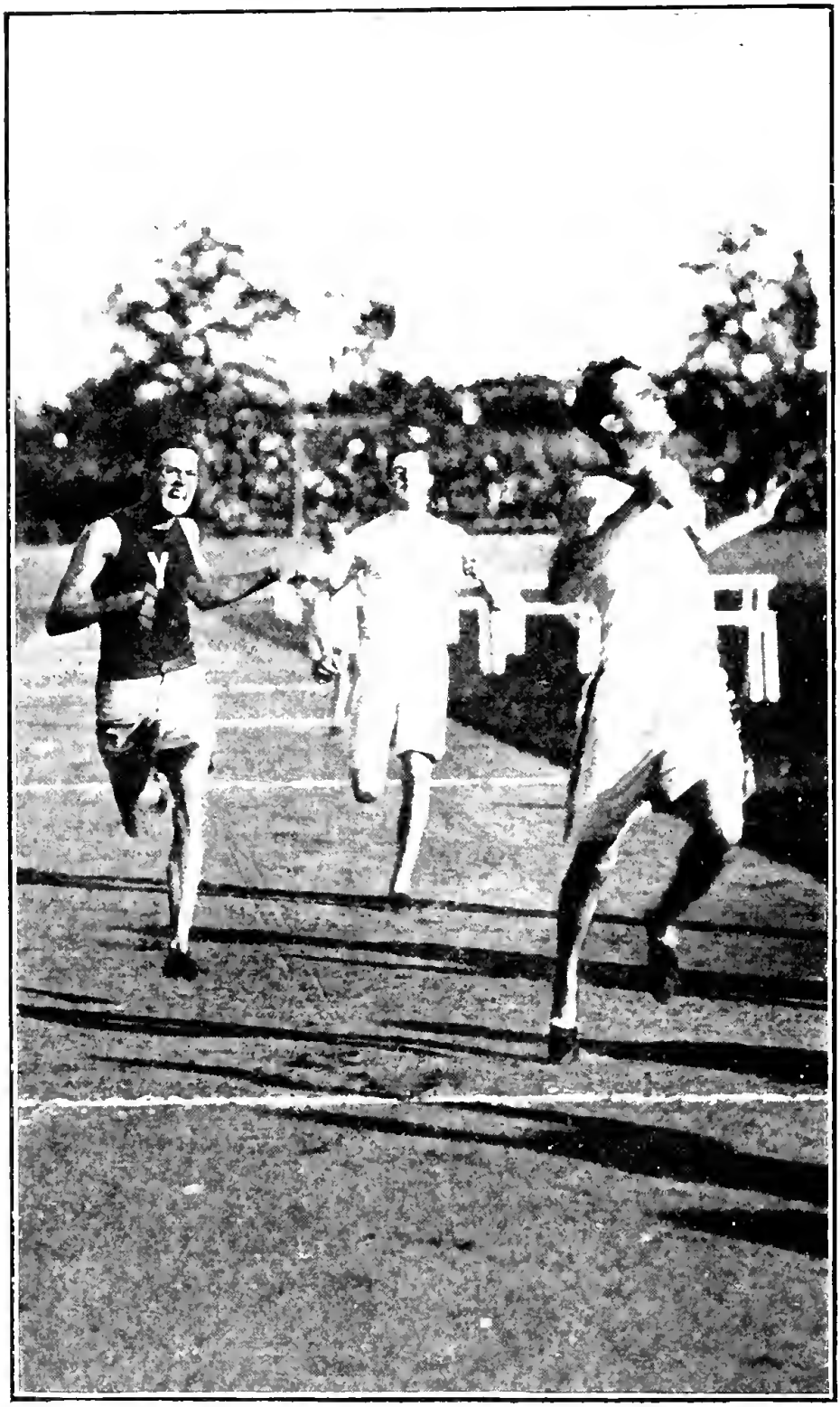
Quarter-miler. Burke is the typical middle distance man, length of limb and speed being his main characteristics.

casional handicaps and by dividing the men into slow and fast packs one can get in all the fast work that is necessary to ensure good form on the day of the race. Here, again, the American must be warned that it is better to run too far than not far enough.

The cross-country runner should also learn how to vault, while a knowledge of the rudiments of hurdling will often stand him in good stead. If America's so-called cross-country championships were to be held in the future on the Morris Park race track, New York City, I would emphasize this part of cross-country work much more strongly. But in reality, the races that are held at Morris Park are not cross-country races. They are merely long distance steeplechases, and many of the features that should characterize a real cross-country race are absent on such a course.

All the remarks relative to steady pace apply in cross-country running, except that it very frequently happens, because of the inequalities of the ground, that the pace will have to be slowed down or hastened. But, as far as possible, the gait should be steady and mechanical. This is in harmony with the physiological principles of distance running, as every organ of the body should be in rythm, and this cannot be if the gait is not regular.

The climbing or descending of hills is often an important part of distance running. In general, it may be said that the body should be held in such a position that its centre of gravity is immediately over the leg as the foot strikes the ground. To be more explicit, in going up hill, the body should be bent forward, so that the weight will throw the runner ahead. Then, by shortening the stride a little, it will be found that one can retain one's gait, even up a rather steep hill. In coming down, one should hold the body back a little from the ordinary position,



BOARDMAN, Yale. RUST, Harvard.

Finish of the International quarter-mile in 1901. Note the way both Rust and Boardman are trying.

Then, by making full use of the arms, and by shortening the stride, one can go down a hill at quite a fast gait. I have said that in going down hill one should shorten the stride. Perhaps I ought to say that the full stride should not be taken, for the very fact that one is going down hill will make the stride several inches longer. I may be clearer to some readers if I say that in going down hill one should keep the feet well under one.

If the runner has a strong heart and lungs, when racing cross-country he should make the most of the hills. He should go up them at a steady pace and make time by speeding down them.

MARATHON TRAINING

Training for a Marathon or twenty-five mile race is the same as for cross-country running, except that the distance covered must be greater. It is rare, however, that a Marathon runner covers more than fifteen miles in his training, as he depends on his general condition to carry him through the full distance. Indeed, the keynote for success in this event is in the perfection of the runner's general condition. His heart, lungs and especially his stomach must be in the best of shape for such a long race, and if these are in good condition, he is sure to do well if he has gotten accustomed to covering at least half the distance.

GEORGE ORTON, N. Y. A. C.

Note the position of the body.

STEEPLECHASING

Steeplechasing is cross-country racing under more favorable conditions. This event is generally held in the inner enclosure of the athletic field. Instead of fences, hurdles are set up, while the brook is represented by a water jump. Frequently there is also a stone fence varying in height and width. The regular distance for this event is two miles. There are no rules either for the height or number of the hurdles, the width or number of water jumps, etc. One must be a good jumper to make a good steeplechaser, and the better hurdler one is, the better for him. Steeplechasing is a very hard game, because the jumps, together with the fairly fast pace, make it exhausting. If one is a good distance runner and desires to become a steeplechaser, it is necessary to practice jumping and hurdling. The style of hurdling used in steeplechasing should not be the same as that used in the high and low hurdle events. In both of these races, the hurdler endeavors, according to the latest style, to get over the hurdle as swiftly as possible. But in steeplechasing, one is not sprinting and the old gliding hurdle style is the better. In fact, the steeplechaser should try to get over the hurdle with as little arm action and as easy a leg motion as possible. He should endeavor to clear the hurdle without breaking his stride. As the hurdles are placed at no definite distance apart, he will have to learn to gauge his stride so that he will reach the hurdle without breaking his gait. This is a matter of practice.

Many steeplechase courses have a stone fence. These are generally about 3 feet 4 inches high and about 2 or 3 feet broad.

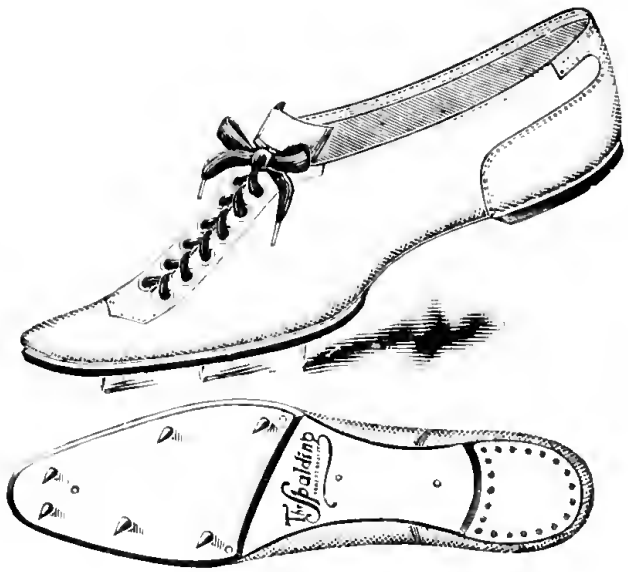
This should be hurdled, because it looks much more dangerous than it is.

The water jumps vary so in width and depth that it is impossible to give any method of clearing them. The runner should jump them if it is not too great an effort, and no water jump should be so long that a good jumper cannot clear it. If one cannot jump the water, it may be that by stepping on the hurdle in front of it one may be able to land on the other side safely. If it is too wide even for this procedure, then it is simply a case of taking a ducking. But if the water jump is made correctly, so that it will gradually get shallower near the further side, one should then clear the hurdle at a smart pace, land on one foot in the water and with the next step be out of it. The English runners have this way of taking the water jump down to perfection, and for many of them it is much better than jumping, for they expend very little effort in thus taking the jump with one stride.

In training for steeplechasing one should not do too much jumping over the fences. Three times a week will be plenty; the other days the athlete should train as if for a two-mile flat race.

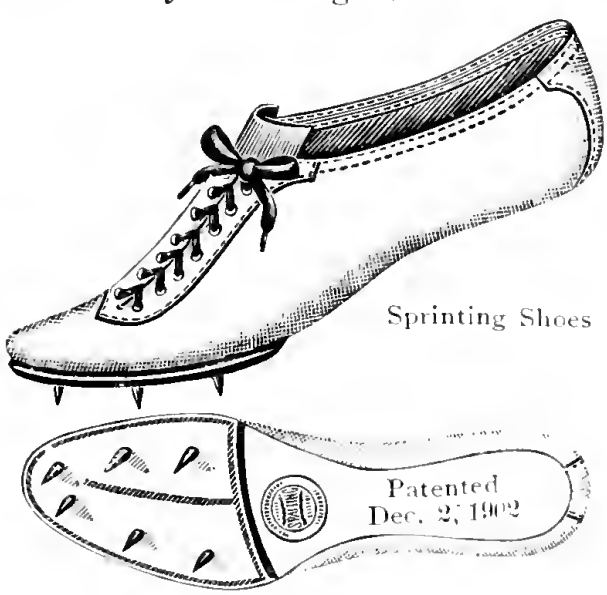
L of C.

WHAT TO WEAR AND USE



Cross Country Shoes

It is very important that the beginner in athletics should know what to wear for the different sports. The cross country runner requires a shoe with a low, broad heel, and spikes in sole of shoe; he can have spikes in the heel or not, just as it suits him. A pair of Spalding's No. 14-C shoes, which are made of the finest Kangaroo leather, and used by all the prominent cross country runners, cost $5.00 per pair. A sprinter will require a pair of sprinting shoes, No. 2-0, that retail for $5.00. It was with this style shoe that Wefers made all his records. John Cregan, the Inter-collegiate Champion, wore them, as well as Charles Kilpatrick, the peerless half-mile runner and celebrated record holder, and Arthur J. Duffey, who has gone the 100 yards in 9 3-5 seconds. The sweater, No. A, of finest Australian lamb's wool, was made originally by special order for the Yale foot ball team



Sprinting Shoes

and now used by all college athletes, is one of the best in the market, sells for $6.00; athletic shirt, No. 600, at $1.25; athletic pants, No. 3, at 75 cents; a supporter is very essential for an athlete and nearly all the champions use them; No. 5 is the most suitable one and retails at 75 cents; a pair of corks will cost the athlete 15 cents; pushers for the running shoes, 25 cents; the bath robe is now an essential part of an athlete's outfit—these retail at $5.00. This complete outfit costs $19.15.

The second quality of the same line of goods can be bought as follows: Sprinting shoes, No. 10, $4.00; sweater, No. B, $5.00; shirt, No. 6 E, 50 cents; pants, No. 4, 50 cents; supporter, No. 2, 50 cents; corks, No. 1, 15 cents; pushers, No. 5, 25 cents; bath robe, $3.50. This second grade outfit costs $14.40.

Jumping and Hurdling Shoes

The pole-vaulter will want the same outfit, with the exception of a pair of jumping shoes, No. 14-H, which sell for $5.00, and a pair of wrist supporters, No. 200, which can be bought for about 35 cents. There is one article that a pole-vaulter must have, and that is his own pole. There is an awful lot in getting used to a pole and having confidence in the one that is yours, because no other contestant is allowed to use it according to the rules, which is quite right, for we have often seen a pole-vaulter make the fatal mistake of allowing much heavier men to use his pole and break it. Any one can naturally understand that a man who weighs 160 pounds cannot use a pole designed for a man weighing 115 pounds. The best pole on the market for athletic purposes is the 15-foot 6-inch pole as supplied by A. G. Spalding & Bros. to the Prince-

ton University A. A. This pole is made of hollow spruce, thus being much lighter, and owing to a special preparation with which it is filled, the strength and stiffness is greatly increased. It retails for $10.50; a 13-foot pole, hollow, retails for $9.50, and the solid for $6.00. Usually the vaulter will wrap the pole to suit his own tastes.

Intercollegiate Sweater

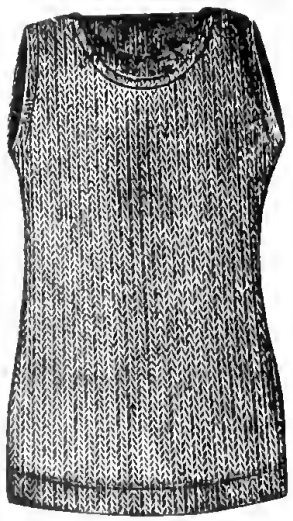
The high jumper and the broad jumper will want an outfit as follows: Jumping shoes, No. 14-H, $5.00; sweater, No. A, $6.00; shirt, No. 600, $1.25; pants, No. 3, 75 cents; supporter, No. 5, 75 cents; corks, No. 1, 15 cents; pushers, No. 5, 25 cents; bath robe, $5.00.

An outfit with several of the articles of a cheaper grade than the above, costs: Jumping shoes, No. 14-H, $5.00; sweater, No. B, $5.00; shirt, No. 6-E, 50 cents; pants, No. 4, 50 cents; supporter, No. 2, 50 cents; corks, No. 1, 15 cents; pushers, No. 5, 25 cents; bath robe, $3.50.

The man who throws the weights will require the same wearing apparel as the pole-vaulter or the runner. John Flanagan and James Mitchel, two of the greatest weight throwers in the world, wear what is known as the No. 14-H shoe, with a short spike, which retails for $5.00. It is very essential that the weight thrower should have his own implements; in fact, nearly all the champion weight throwers carry their own weights with them and guard them jealously.

Without doubt the best hammer in the market to-day is the ball-bearing championship hammer as designed and used by John

Flanagan, the record holder and champion thrower of the world. This sells for $10.00. An extra leather case for carrying these hammers will cost the athlete $2.00. The regulation hammer, lead, you can get for $4.50 and the iron at $3.25. The 16-pound shot, lead, will cost $2.50, and the iron, $1.25. The 56-pound weight, lead, will cost $8.50, and the iron $7.00. With the Spalding 56-pound weight come two sets of handles, one for one hand and one for two hands; and I would advise any weight thrower who wants to become expert to carry his own weights and particularly his own hammer. He can then arrange to have the grip made to suit himself, and when necessary to cover it with leather, and he will not be called upon when he goes to a competition to take the ordinary hammer with a handle with which he is not familiar.



Sleeveless Shirts

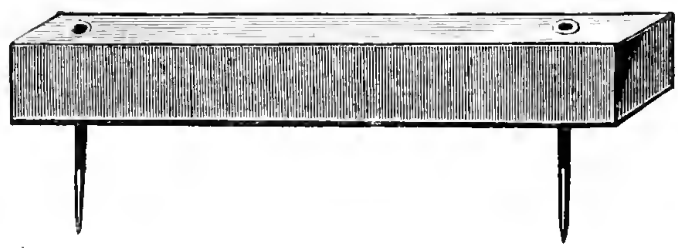
Athletes should make it a point to have two suits of athletic apparel, one for competition and one for practice purposes. The clothing that some of our crack athletes wear in competition is a disgrace to athletics, and it adds a great deal to an athlete's appearance to appear neat and clean when taking part in athletic competition. In practice within one's club or grounds almost any kind of clothing can be used. A sprinter should have two pairs of running shoes, one a very heavy pair for practicing in (the cross country shoe, No. 14-C, makes a very good shoe for this purpose, and can be had with or without spikes on heels), and a light pair for racing. One of the best professional

Running Pants

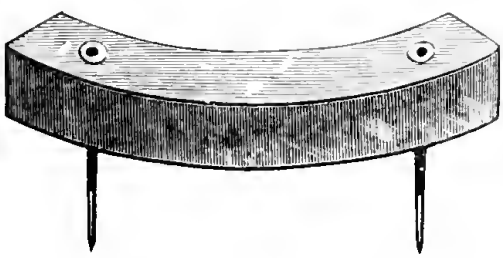
sprinters that ever wore a shoe made it a point to train for all his races in very heavy sprinting shoes. Aside from the benefit that is claimed for practicing in heavy shoes, you always feel as though you have a pair of shoes that will be ready for any race that is scheduled, and bear in mind it does not pay to buy athletic implements or clothing that are cheap. They don't wear and cannot give you the service that you will get from articles that are official and made by a reputable house.

Athletes and athletic club officials would do well to procure a copy of the Athletic Primer (No. 87) of Spalding's Athletic Library). This book fully covers the construction of athletic grounds and tracks, the management of games, formation of new clubs, etc. It also contains illustrations and diagrams of what might be considered a perfect athletic track.

In laying out or re-arranging grounds great care should be taken to see that the field sports can go on without interference, and in the management of a large meeting it is very essential that more than one field sport should go on at one time. Therefore it should be arranged to have the running broad jump, running high jump, and the circles for weight-throwing separated. In order to have your plant as perfect as possible, it is necessary that you have all the apparatus that is necessary, not only to conduct an athletic meet, but to give the different athletes an opportunity to practice the various sports.



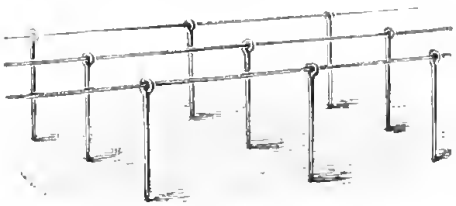
Take-off Board



Toe Board or Stop Board

There are many things that are required. Great care should be taken in the arrangement of the broad jump. The toe board is a very important article and is generally overlooked, and the runway requires as much attention as

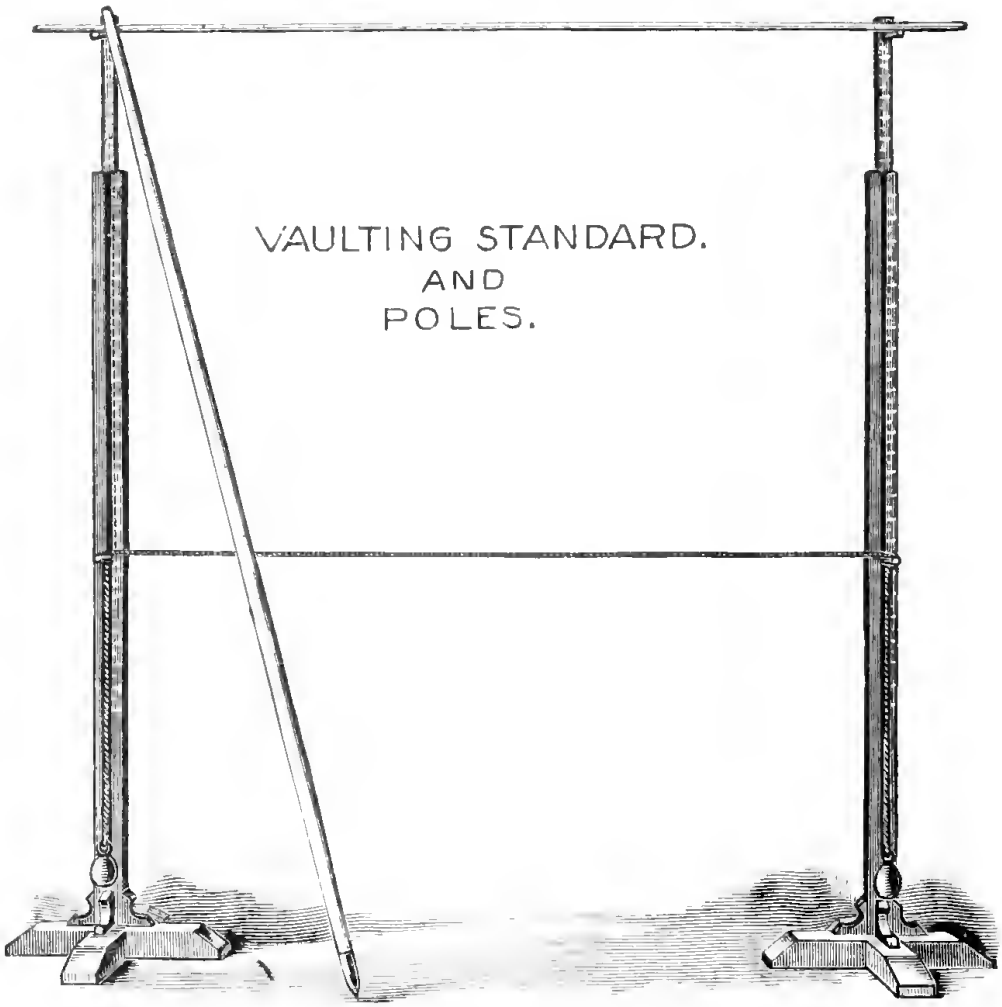
the track. At the average athletic grounds the jumping path is usually neglected.



Lanes for Sprint Races

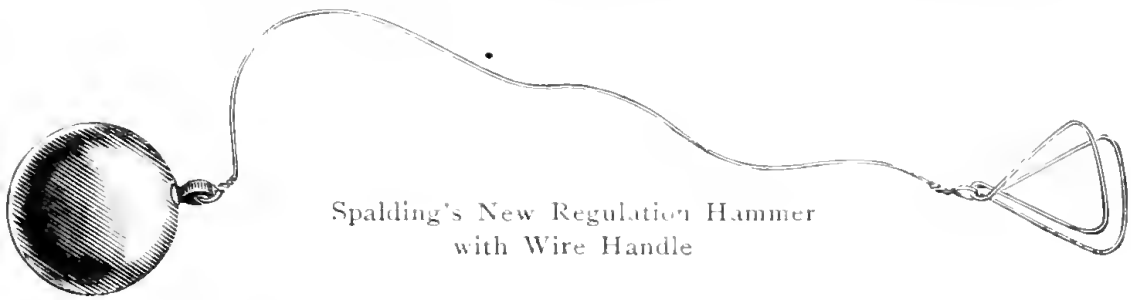
In the sprint races, wherever possible, each contestant should be given his own lane. A lane can be made of iron stakes driven in the ground about eighteen inches apart and strung with cords.

For the pole vaulters and high jumpers you should procure two sets of wooden apparatus—Spalding's complete apparatus



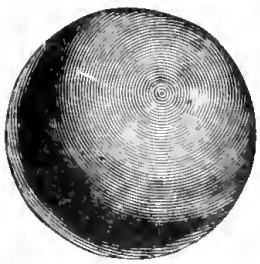
No. 109. If the pole jump and high jump go on at the same time, an extra lot of cross-bars should be on hand and three or four different poles.

For the weights you will be required to furnish a 16-lb. Spalding Championship Ball Bearing Hammer, as originally designed



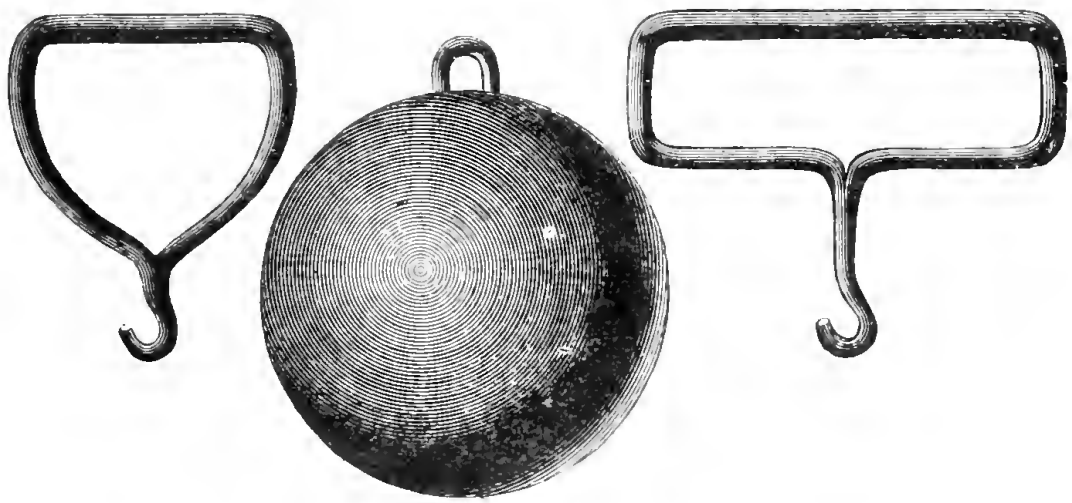
Spalding's New Regulation Hammer
with Wire Handle

by Champion John Flanagan. It is now universally used by all the good weight throwers. The ball-bearing swivel hammer is in great demand and favored. It does away with the breaking of handles, and Flanagan claims it can be thrown many feet further than the old style hammer. Schoolboys invariably use the 12-pound shot and the 12-pound hammer. If they desire lead shot, it usually costs a little more than the iron. The 16-pound iron shot can be bought for about $1.25, and the 12-pound for $1.00.



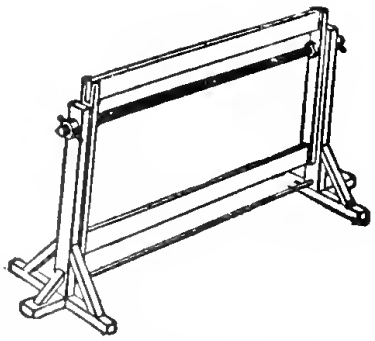
Shot

The regulation 56-pound weight, known as the "Mitchel" weight, can be secured for $7.00, and with it come two handles, one for the man who throws with one hand and the other for the two handed thrower.



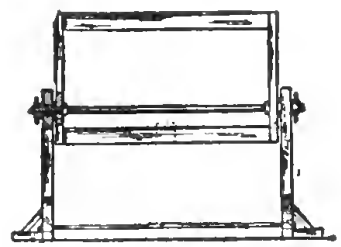
Regulation 56-Lb. Weight

The most suitable hurdles on the market are the Foster Patent Safety Hurdles. The frame is 2 feet 6 inches in height with a horizontal rod passing through it two feet above the ground. The hurdle is a wooden gate 2 feet high swinging on this rod at a point 6 inches from one of the sides and 18 inches from the other. With the short side up it measures 2 feet 6 inches from the ground, and with the long side up 3 feet 6 inches.



Foster Patent Safety Hurdle at 2 ft. 6 in. height

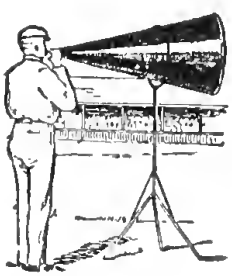
The hurdle can be changed from one height to the other in a few seconds, and is held firmly in either position by a thumb-screw on the rod. It would be hard to conceive any device more simple or more easily handled than this. The invention was used exclusively at the Pan-American Sports and has met with the approval of the best known physical directors and trainers of the country.



Foster Patent Safety Hurdle at 3 ft. 6 in height

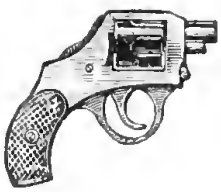
The Spalding Official Discus should always be on the grounds. This retails for $5.00.

Official Discus



Megaphone

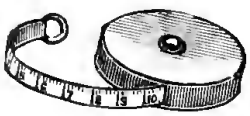
A megaphone is now a necessary adjunct to an athletic meeting. With a megaphone almost any amateur can announce the results distinctly.



Starter's Pistol

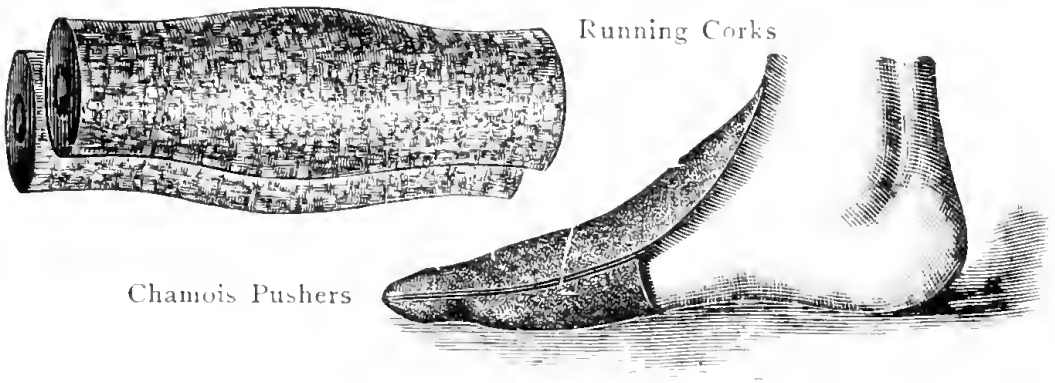
The captain of the club should endeavor to have in his possession a pistol so that the boys can practice starting, and a whistle for announcing that everything is ready for a start and also for attracting the attention of the officials, several measuring tapes and several balls of yarn for the finish.

Whistle



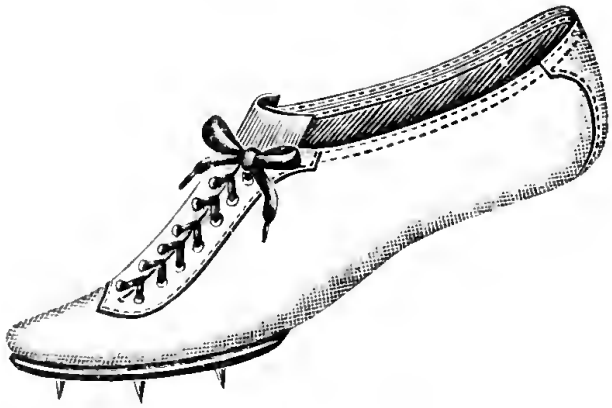
Measuring Tape

The athlete is also advised to consult the following books which contain a great deal of useful and necessary information on their respective subjects. No. 27—College Athletics, by Michael C. Murphy, the Yale trainer. No. 37—All-Around Athletics. No. 87—Athletic Primer, devoted especially to the subject of athletic grounds and the formation and running of athletic clubs. No. 135—Official Amateur Athletic Handbook, which contains the rules under which every set of athletic games must be contested, and should be studied by every athlete who intends to compete. No. 136—Official Handbook of the Athletic League of Y. M. C. A.'s. No. 149—The Care of the Body, by Prof. Warman, the famous exponent of physical culture. No. 153—Athletes' Guide, containing full directions for learning how to sprint, jump, hurdle



and throw weights, with general hints on training for each, and a special chapter of advice to beginners and a talk on important A. A. U. rules and their explanations, by James E. Sullivan, secretary-treasurer of the Amateur Athletic Union; illustrated from actual photographs of the leading athletes in action. No. 168—Official Athletic Almanac, published yearly, and the only publication containing all the official athletic records, besides portraits of leading athletes and pictures of important athletic events. No. 176—Official Inter-Collegiate Handbook, contains the official rules of the Inter-Collegiate A. A. A., and should be studied by every athlete who intends to compete in college events. The price of any of the above is ten cents, and they can be obtained generally from any newsdealer or from the publishers, American Sports Publishing Company, 16-18 Park Place, New York.

Spalding's Patented Running Shoes



We believe, in this shoe all the various difficulties experienced in manufacturing a satisfactory running shoe in the past have been overcome. First of all, you have here a shoe in which the spikes cannot by any possibility come in contact with the foot; then you have a rubber sole that is an assistance, in that it is partly underneath the spike, and therefore acts in the nature of a cushion. Above all, our patented principle in this shoe enables us to place the spikes so that they will not come loose after being wet, as water has no effect on the rubber sole. We also claim that on account of the non-slippable purchase a runner obtains with this sole, he is able to make a quicker start than is possible with a shoe of ordinary construction, and this fact has been demonstrated conclusively by those who have already tried our shoe and who pronounce it perfect in all respects.

No. O. Per Pair, $5.00

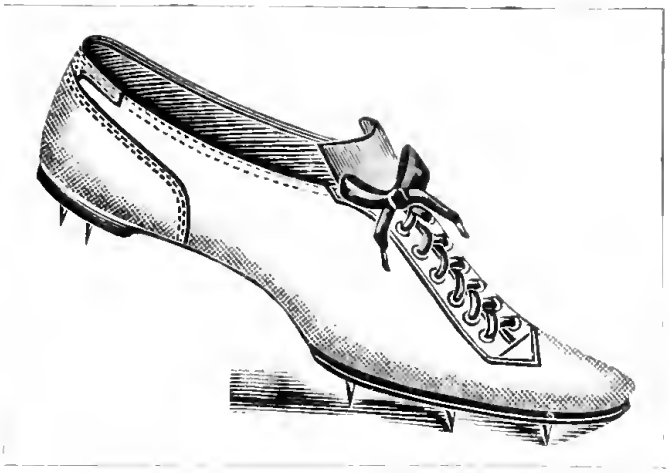
Spalding's handsomely illustrated catalogue of athletic goods mailed free to any address

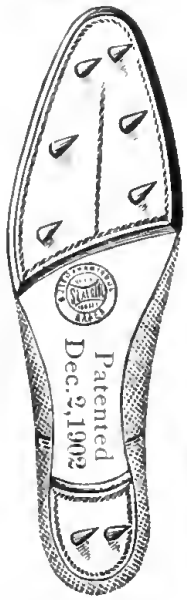
A. G. SPALDING & BROS.

New York	Chicago	Philadelphia	San Francisco
St. Louis	Boston	Buffalo	Baltimore
Denver	Minneapolis	Kansas City	Montreal, Can.

London, England

Spalding's Patented Jumping Shoes





Made on same principle as our patented running shoe but with two spikes in heel. This heel is made of rubber and acts as a perfect cushion, stopping all jar, thus doing away with disadvantage possessed by ordinary jumping shoes.

No. 15H. Per pair, $5.00

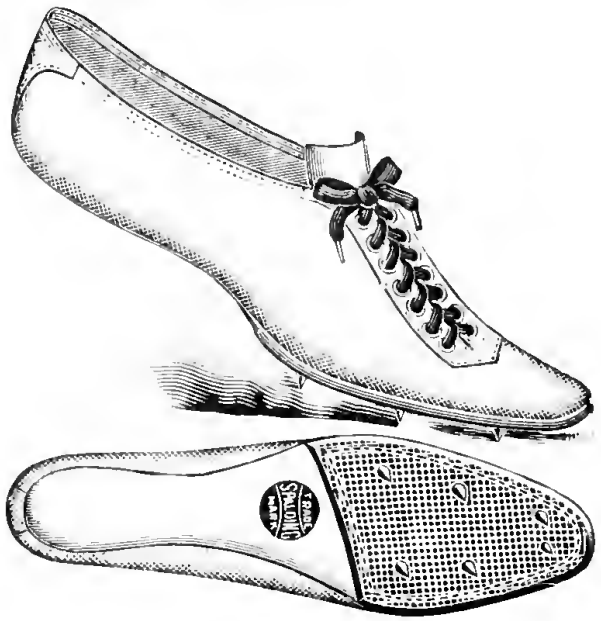
Same as No. 15H, but short spikes, for indoor jumping.

No. 110. Per pair, $5.00

A. G. SPALDING & BROS.

New York, Chicago, Philadelphia, San Francisco
St. Louis, Boston, Buffalo, Baltimore
Denver, Minneapolis, Kansas City, Montreal, Can.
London, England

Indoor Running Shoes



. . . . With or Without Spikes . . . .

Fine leather, rubber tipped sole, with spikes.

No. 111. Per pair, $3.50

Leather shoe, rubber tipped, with spikes.

No. 112. Per pair, $3.00

Leather shoe, rubber tipped, no spikes.

No. 114. Per pair, $2.50

Indoor Jumping Shoes

Best Leather Indoor Jumping Shoe; hand made, rubber soles.

No. 210. Per pair, $5.00

A. G. SPALDING & BROS.

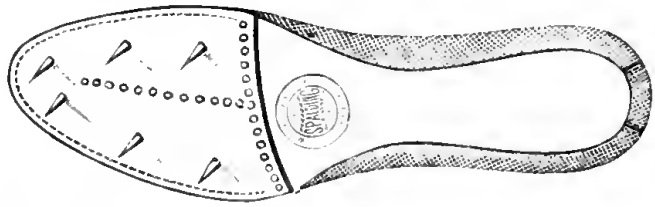
New York	Chicago	Philadelphia	San Francisco
Boston	Baltimore	Buffalo	Kansas City
St. Louis	Minneapolis	Denver	Montreal, Can.

London, England

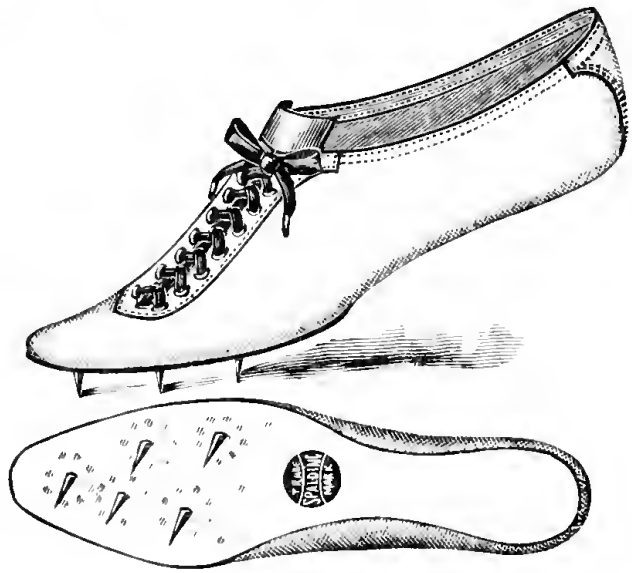
Running Shoes

Calfskin Running Shoe, machine made; solid leather tap sole holds spikes firmly in place.

No. 11T
Per pair, $3.50



Running Shoes



Calfskin Running Shoe maehine made.

No. 11
Per pair, $3.00

A. G. SPALDING & BROS.

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Spalding's Jumping and Hurdling Shoes

Jumping and Hurdling Shoe; fine kangaroo leather, hand-made; two spikes on heel.

No. 14H. Per pair, $5.00

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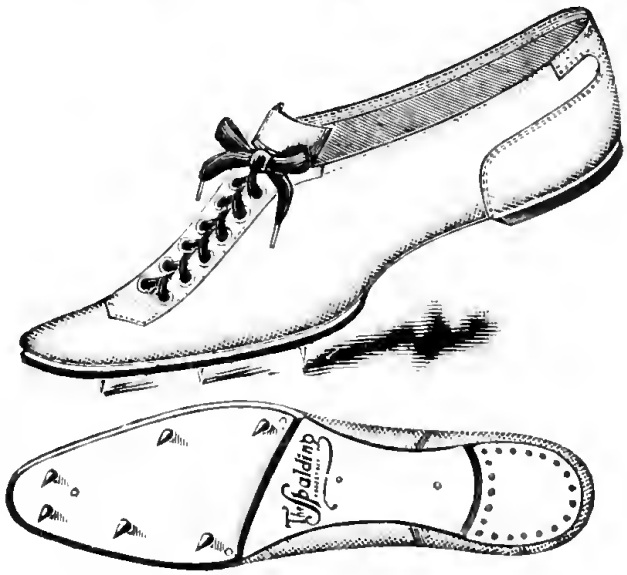
Spalding's
Cross Country Shoes



Finest kangaroo leather; low broad heel, flexible shank, hand-sewed; six spikes on sole; with or without spikes on heel.

No. 14C. Per pair, $5.00

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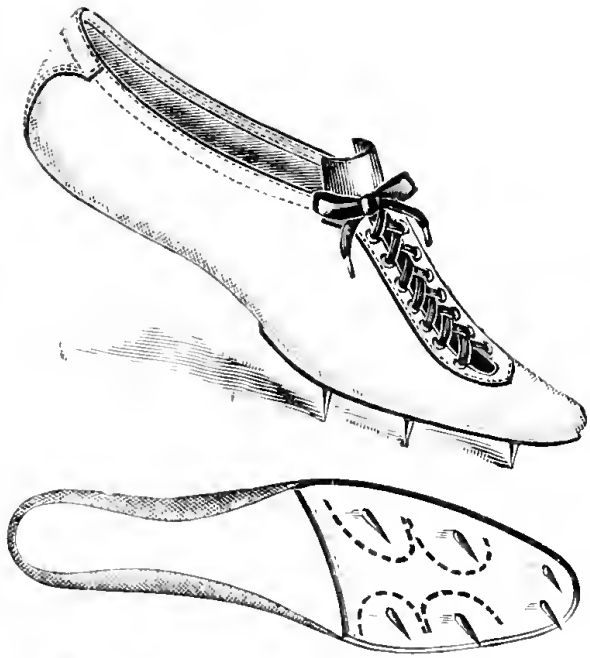
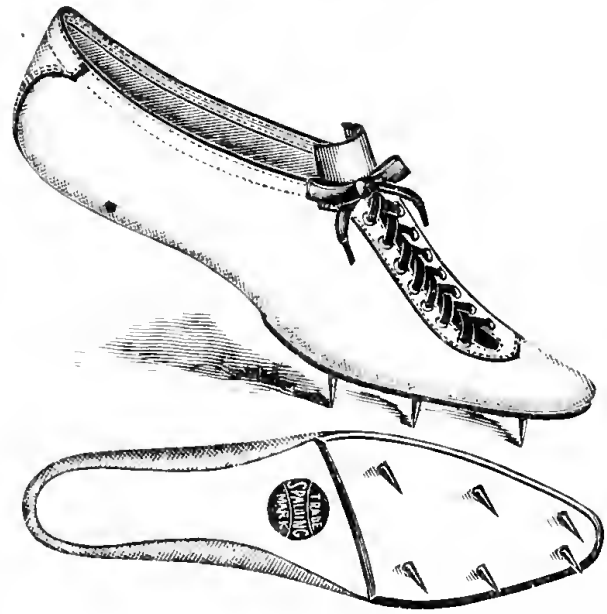


Running Shoes

This running shoe is made of the finest kangaroo leather; extremely light and glove fitting; best English steel spikes firmly riveted on.

No. 2-0
Per pair, $5.00



Running Shoes

Finest Calfskin Running Shoe; light weight, hand made, six spikes.

No. 10
Per pair, $4.00

Spalding's handsomely illustrated catalogue of athletic goods mailed free to any address

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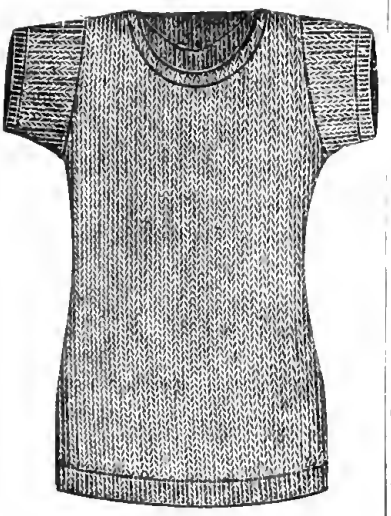
SLEEVELESS SHIRTS

Cut Worsted, full fashioned, Navy, Black and Maroon.

No. 600. Each, $1.25

Sanitary Cotton, White, Navy, Black, Maroon.

No. 6E. Each, 50c.



QUARTER SLEEVE SHIRTS

Cut Worsted, full fashioned, Navy, Black and Maroon.

No. 601. Each, $1.25

Sanitary Cotton, White, Navy, Black and Maroon.

No. 6F. Each, 50c.

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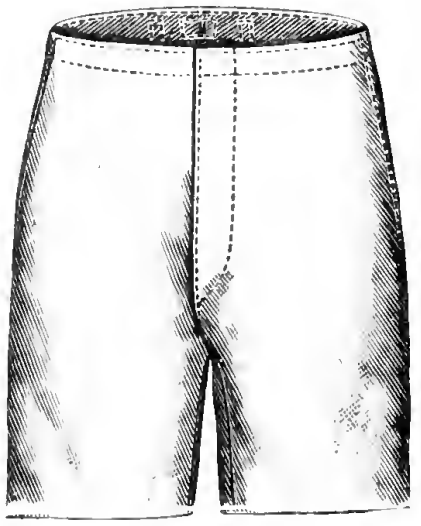

No. **1.** White or Black Sateen, fly front, lace back . . . Per pair, **$1.25**

No. **2.** White or Black Sateen, fly front, lace back . . . Per pair, **$1.00**

No. **3.** White or Black Sateen, fly front, lace back . . . Per pair, **75c.**

No. **4.** White or Black Silesia, fly front, lace back . . . Per pair, **50c.**

Stripes down sides of any of these running pants, 25 cents per pair extra.

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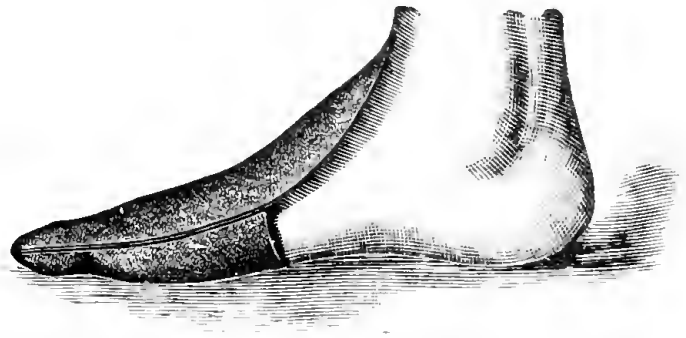
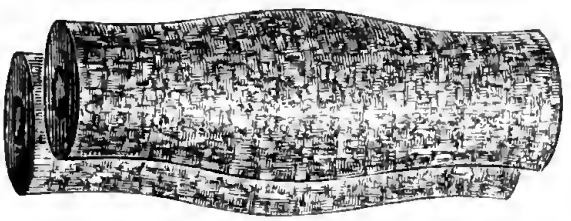
CHAMOIS PUSHERS



Made of fine chamois skin and used with running, walking, jumping and other athletic shoes.

No. 5. Chamois Pushers. Per pair, 25c.

ATHLETIC GRIPS



Made of selected cork and shaped to fit the hollow of the hand.

No. 1. Athletic Grips. Per pair, 15c.

COMPETITORS' NUMBERS

Printed an heavy Manila Paper or Strong Linen.

			Manila	Linen
No. 1.	1 to 50.	Per set,	$ .50	$ 2.50
No. 2.	1 to 75.	"	.75	3 75
No. 3.	1 to 100.	"	1.00	5.00
No. 4.	1 to 150.	"	1.50	7.50
No. 5.	1 to 200.	"	2.00	10.00
No. 6.	1 to 250.	"	2.50	12.50

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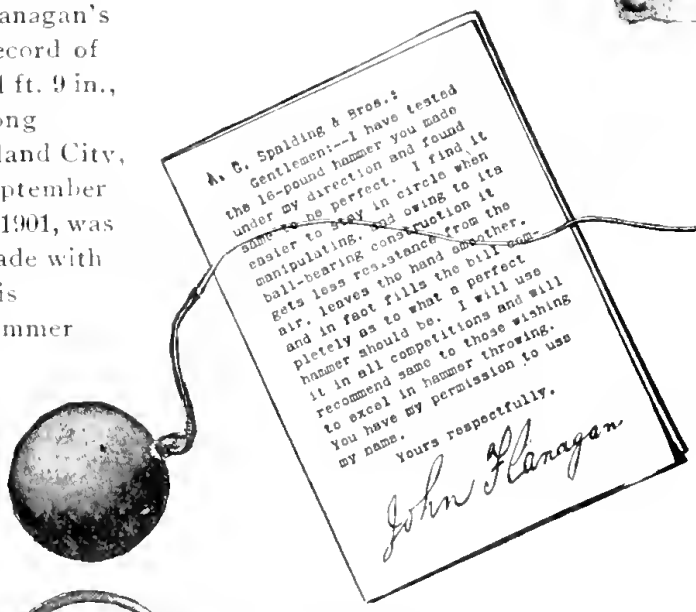
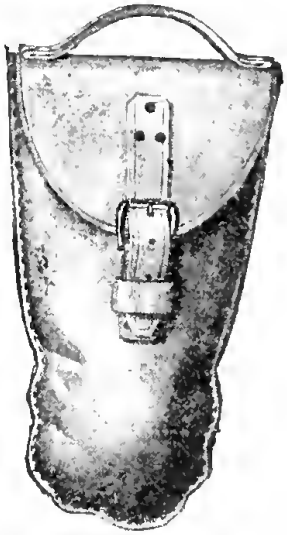
Spalding's Championship Ball-Bearing Swivel Hammer

No. 02. 12-lb., with Sole Leather Case **$12 00**
No. 06 16-lb., with Sole Leather Case **12 00**

Flanagan's Record of 171 ft. 9 in., Long Island City, September 3, 1901, was made with this hammer



A. G. Spalding & Bros.:
Gentlemen:—I have tested the 16-pound hammer you made under my direction and found same to be perfect. I find it easier to stay in circle when manipulating, and owing to its ball-bearing construction it gets less resistance from the air, leaves the hand smoother, and in fact fills the bill completely as to what a perfect hammer should be. I will use it in all competitions and will recommend same to those wishing to excel in hammer throwing. You have my permission to use my name.
Yours respectfully,
John Flanagan



The Spalding Championship Ball Bearing Hammer, originally designed by John Flanagan, champion of the world, has been highly endorsed only after repeated trials in championship events. The benefits of the ball-bearing construction will be quickly appreciated by all hammer throwers. Each hammer put up complete in sole leather carrying case.

No. **02X**. 12-lb., without Sole Leather Case. **$10 00**
No. **06X**. 16-lb., without Sole Leather Case. **10 00**

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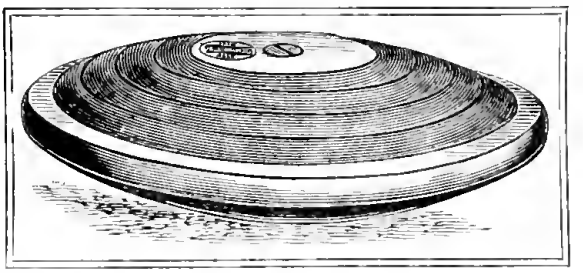
Spalding's Olympic Discus



An exact reproduction of the discus used in the Olympic games at Athens, Greece, by Robert Garrett, of Princeton, the winner. Guaranteed absolutely correct.

OLYMPIC DISCUS. EACH, $5.00

Selected Spruce Vaulting Poles

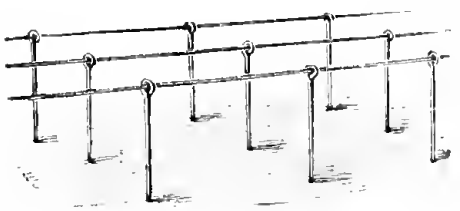
No. 100	8 feet long, solid.	Each, $3.00
No. 101.	10 feet long, solid.	" 4.00
No. 102.	12 feet long, solid.	" 5.00
No. 103.	14 feet long, solid.	" 6.00

Hollow Spruce Poles

Considerably lighter than the solid poles, and the special preparation with which we fill the interior of pole greatly increases the strength and stiffness.

No. 200.	8 feet long, hollow.	Each, $8.00
No. 201.	10 feet long, hollow.	" 8.50
No. 202.	12 feet long, hollow.	" 9.00
No. 203.	14 feet long, hollow.	" 9.50

Lanes for Sprint Races



A lane can be made of iron stakes driven in the ground about eighteen inches apart and strung with cords. Stakes of $\frac{5}{8}$-inch round steel, two feet in height, with one end pointed, and pigtail hook on other end to hold cord.

100 stakes, with cord for same. **$40.00**

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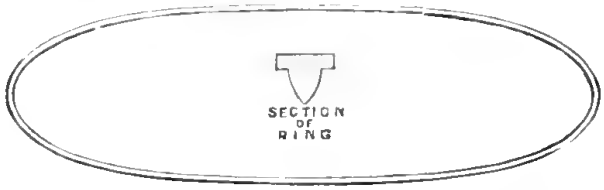
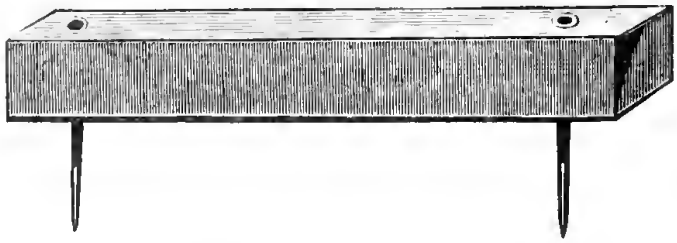
SEVEN-FOOT CIRCLE



The discus, shot and weights are thrown from the 7-foot circle. Made of one-piece band iron, with bolted joints. Circle painted white.

SEVEN-FOOT CIRCLE. EACH, $8.00

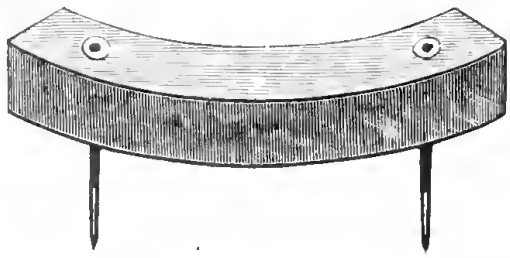
TAKE-OFF BOARD



The take-off board is used for the running broad jump, and is a necessary adjunct to the athletic field. Regulation size, top painted white.

TAKE-OFF BOARD. EACH, $1.75

TOP-BOARD OR STOP-BOARD



The toe-board or stop-board is used when putting the 16-lb. shot, throwing weights and discus, and is curved on the arc of a 7-foot circle. Regulation size, painted white and substantially made.

TOE-BOARD. EACH, $2.00

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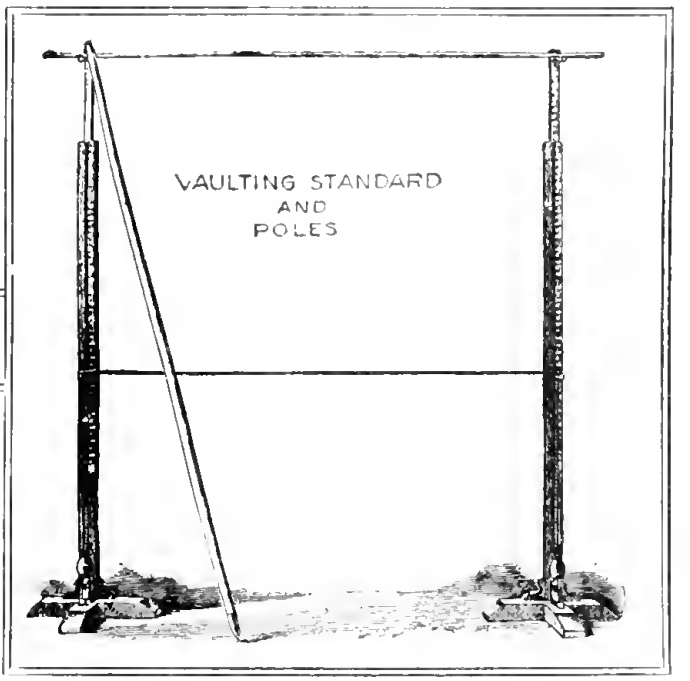
Vaulting Standards



No. **109.** Wooden uprights, graduated in quarter inches; adjustable to 11 feet. . . Complete,	**$15.00**
No. **110.** Wooden uprights, inch graduations; adjustable to 10 feet. . . . . Complete,	**10.00**
No. **111.** Wooden uprights, inch graduations; 7 feet high. . . . . Complete,	**7.00**

CROSS BARS

No. **112.** Hickory Cross Bar. . . . . Per doz.,	**$3.00**
No. **113.** Pine Cross Bar. . . . . "	**2.00**

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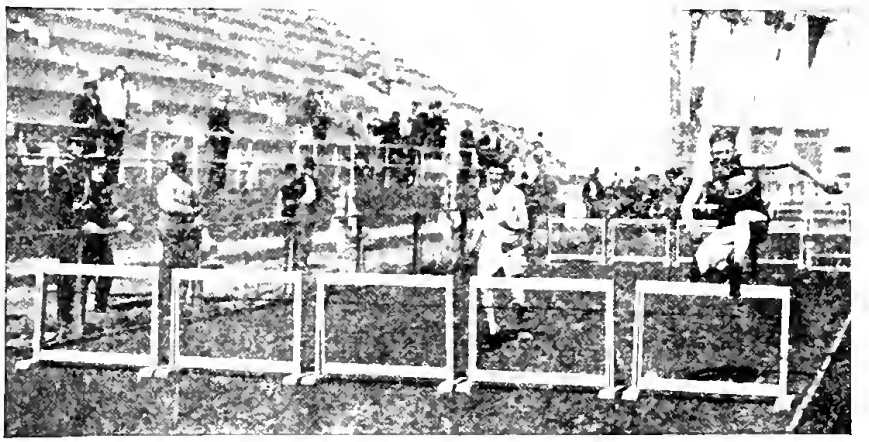
Foster's Patent Safety Hurdle



The frame is 2 feet 6 inches high, with a horizontal rod passing through it 2 feet above the ground. The hurdle is a wooden gate 2 feet high, swinging on this rod at a point 6 inches from one of the sides and 18 inches from the other. With the short side up it measures 2 feet 6 inches from the ground, and with the long side up 3 feet 6 inches. The hurdle can be changed from one height to the other in a few seconds, and is held firmly in either position by a thumb-screw on the rod. It would be hard to conceive any device more simple or more easily handled than this. The invention was used exclusively at the Pan-American sports and has met with the approval of the best known physical directors and trainers of the country.

Single Hurdle, $ 3.50
Per Set of Forty, 100.00

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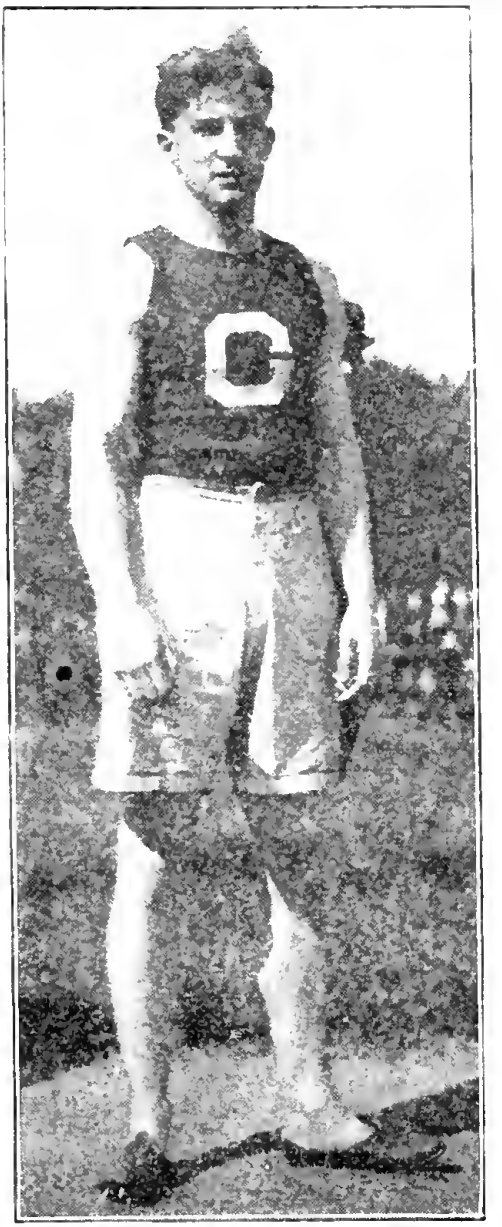
Arthur F. Duffey

The Fastest Indoor Sprinter in the World,

uses and endorses

Spalding's Indoor and Outdoor Running Shoes

For over a quarter of a century A. G. Spalding & Bros. have made the running shoes for America's leading sprinters, base ball and foot ball players. To the base ball player nothing is so important as a pair of shoes that are light, good fitting and serviceable, for he has to be well shod if he desires to excel on the ball field. That is why nearly all the ball players use the Spalding Shoes.



No. 0. Spalding's Patented Running Shoe. Pair, $5 00

Other Running Shoes at $4.00, $3.50, $3 00

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BOXING

SPALDING'S ATHLETIC LIBRARY 162.

Any boy, with the aid of this book, can become an expert boxer. Every trick thoroughly explained and illustrated by half-tone pictures made especially for this book. Contents also include the official rules for all boxing contests, hints on training, a short history of the sport and pictures of all the leading boxers; 100 pages of pictures and 100 of text.

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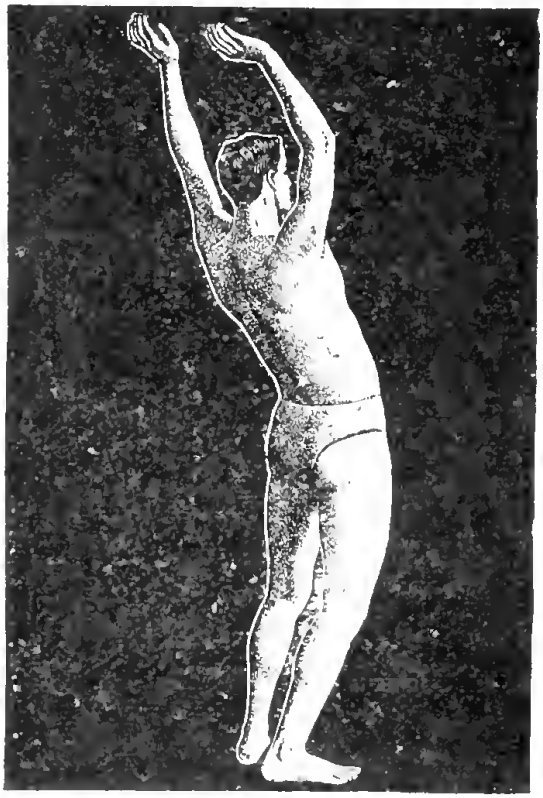

10 MINUTES Exercise For Busy Men. 10 cents

SPALDING'S ATHLETIC LIBRARY 161.

These exercises are the result of years of experience, in which their success has been thoroughly demonstrated. The course is divided into five parts. Each individual movement is illustrated by a full page half-tone of a photograph especially posed for this work, with the instructions on the opposite page in large type, comprising nearly 200 pages.

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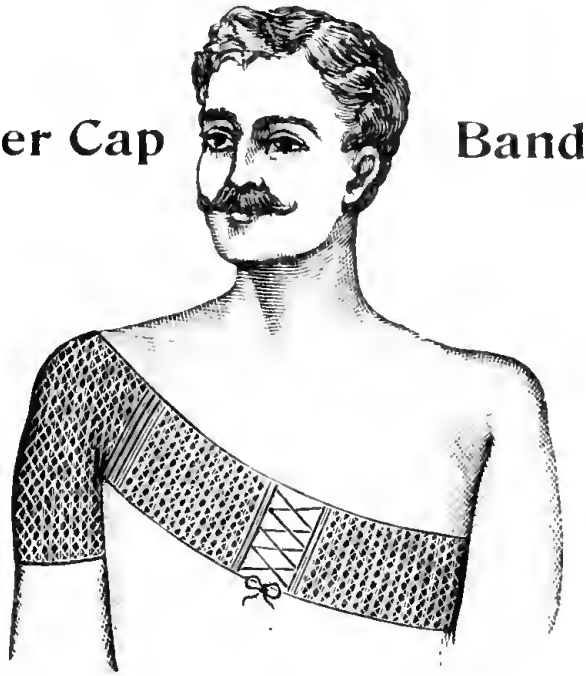
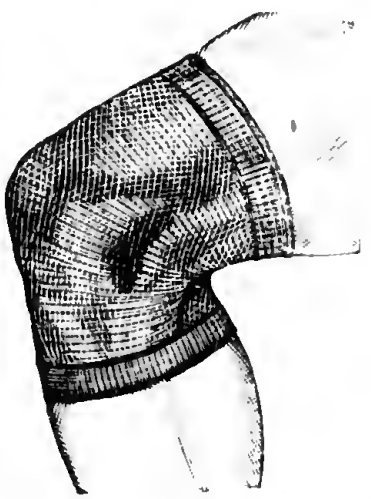
Shoulder Cap Bandage



In ordering, give circumference around arm and chest.

No. 1. Cotton thread. Each, **$4.00**
No. **1A.** Silk thread. " **5.50**



Knee Cap Bandage

In ordering, give circumference below knee, at knee and just above knee, and state if light or strong pressure is desired.

No. **4.** Cotton thread, **$1.50**
No. **4A.** Silk thread, **2.00**

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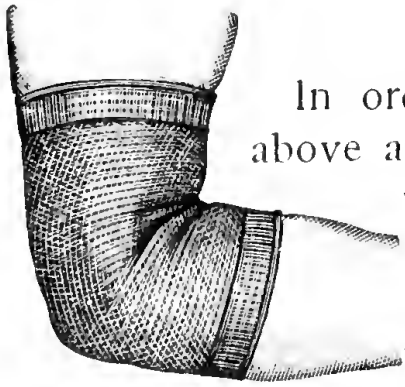


Elbow Bandage

In ordering, give circumference above and below elbow, and state whether for light or strong pressure.

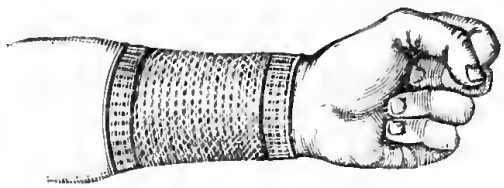
No. **2.** Cotton thread, **$1.50**
No. **2A.** Silk thread, **2.00**

Ankle Bandage

In ordering, give circumference around and over instep, and state if light or strong pressure is desired.

No. **5.** Cotton thread, **$1.50**
No. **5A.** Silk thread, **$2.00**

Wrist Bandage



Give circumference around smallest part of wrist, and state whether for light or strong pressure.

No. **6.** Cotton thread. Each, **$ .75**
No. **6A.** Silk thread. " **1.00**

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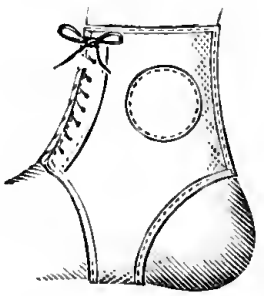
THE HACKEY PATENT ANKLE SUPPORTER

Patented, May 12, 1897.
A. G. Spalding & Bros., Sole Licensees.



No. SH.

An ankle support of some kind has now come to be recognized as a necessity by most athletes. The styles which we manufacture under the Hackey Patent have given universal satisfaction, and are absolutely reliable and practically perfect in construction and design. They are worn over stocking and support the ankle admirably, while not interfering in any way with free movements. Relieve pain immediately and cure a sprain in a remarkably short time. In ordering, give size of shoe worn.

No. H.

No. CH.

No. **H.** Made of soft tanned leather, best quality. . . Per pair, **$1.00**

No. **SH.** Good quality sheepskin, lined and bound. . Per pair, **.75**

No. **CH.** Black duck, lined and bound, leather reinforced. . Per pair, **.25**

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The Spalding "Official" Basket Ball

Officially adopted and must be used in all match games. The cover is made in eight sections, with capless ends and of the finest and most carefully selected pebble grain leather. The bladder is made specially for this ball of extra quality Para rubber. Each ball packed, complete, in sealed box, and guaranteed perfect in every detail.

No. **M. $5.00**

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SEC. 3. The ball made by **A. G. Spalding & Bros.** shall be the official ball. Official balls will be stamped as herewith, and will be in sealed boxes.

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BASKET BALL

SEC. 4. The official ball must be used in all match games.

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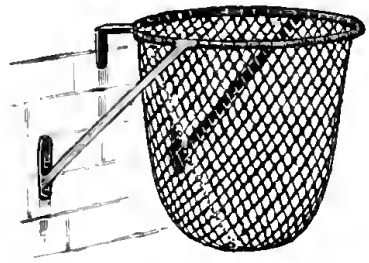
London, England

Spalding's "Official" Basket Ball Goals



Officially adopted and must be used in all match games. We are equipping our basket ball goals now with nets constructed so that the bottom may be left open in practice games to permit the ball to drop through. The opening is closed readily by a draw string for match games.

No. **80.** Per pair, **$4.00**

Outdoor Goals

Outdoor Basket Ball Goals, Uprights and Net Frame. Designed for lawns, schoolyards, outdoor gymnasiums and playgrounds. Everything complete for setting up.

No. **160.** Per pair, complete, **$30.00**

A. G. SPALDING & BROS.

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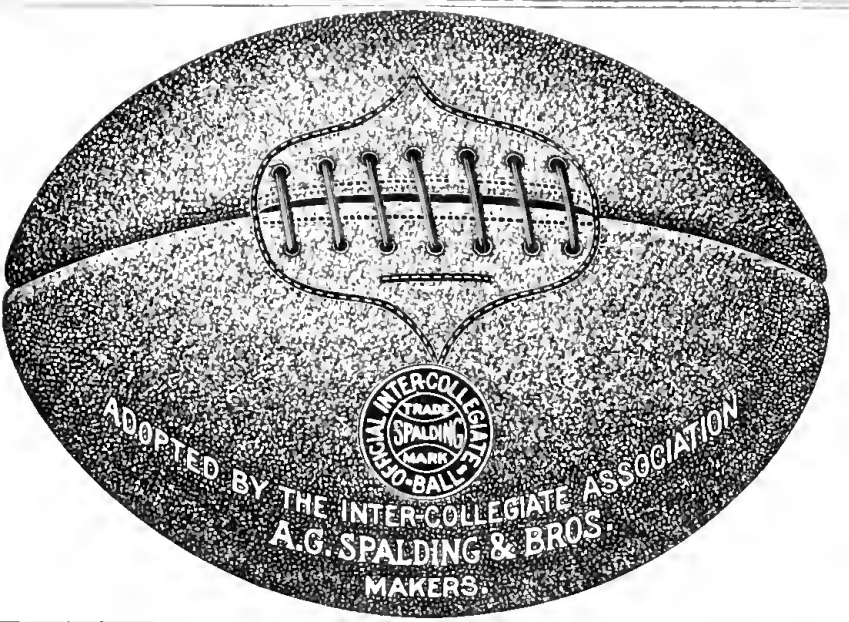

No. **J=5**

THE SPALDING
OFFICIAL
INTER-COLLEGIATE
FOOT BALL

$4.00

We have spared no expense in making this ball perfect in every detail, and offer it as the finest foot ball ever produced. Each ball is thoroughly tested, packed in a separate box and sealed, so that our customers are guaranteed a perfect ball inside when same is received with seal unbroken. A polished brass foot ball inflater and lacing needle will be packed with each Inter-Collegiate foot ball without extra charge. The only ball used in all match games between the leading colleges.

Used exclusively by all the leading universities, colleges and athletic associations in the United States and Canada.

A. G. SPALDING & BROS.

New York	Chicago	Philadelphia	San Francisco
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"Ten Minutes' Exercise for Busy Men"

By Dr. Luther Gulick, is one of the most complete and perfect books that has ever been published on the subject of self-development. This book is edited and arranged by Dr. Gulick, with the distinct understanding that it will take the place of the many so-called "mail order schools" of physical education and will be itself a complete school of physical education if followed by anyone who desires to become a physically perfect man or woman. The course is arranged in five series: Indian Clubs, Dumb Bells, Chest Weights, Free Work and Wands, and so arranged that, if carefully followed, in the course of a few months one will become perfect physically.

The book has been submitted to leading American physical educational authorities, who pronounce it one of the best books on the subject ever offered to the public. In purchasing this book you are not taking a chance with $5, $10 or $20, but you are positively obtaining a publication that will show you how to materially benefit your health. Illustrated with 90 pages of half-tones of photographs posed especially by an expert for this book.

PRICE BY MAIL 10 CENTS.

American Sports Publishing Co.

16–18 Park Place, New York.

A. G. SPALDING & BROS.

GENTLEMEN—I wish to thank you for the perfect shoes and boxing gloves that you furnished me for my fight with Mr. Fitzsimmons, and also to give you my endorsement for the superb quality of these goods. I shall expect to use them in all my future contests.

Yours very truly,

Jas J Jeffries

Handsomely Illustrated Catalogue of Athletic Goods Mailed Free to any Address.

A. G. SPALDING & BROS.

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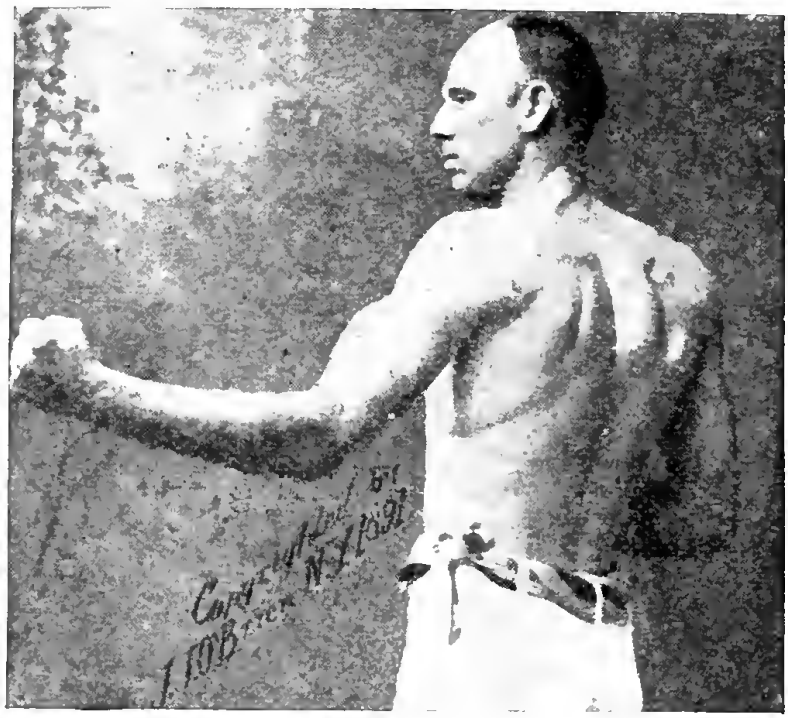


ROSE VILLA, Bensonhurst, N. Y., Feb. 15, 1902.

A. G. SPALDING & BROS.

GENTLEMEN—You no doubt have seen by the Associated Pre s dispatches that I am matched with James J. Jeffries to contest for the championship of the world during the month of May, next. I am going to make an earnest effort to win back the championship, and want to be in fine fettle when I enter the ring. I have always used your gloves in every important battle, and as I can find nothing that can compare with the Spalding gloves and striking bags you make, I want you to forward at once a set of (5) ounce "Specials," and a set of the ten-ounce training gloves.

I am going to have Gus Ruhlin assist me in training, and when I get well under way, will forward an additional order, so that I may not be handicapped for want of apparatus.

Kindly forward bill, and I will send a New York draft to balance account. With regards,

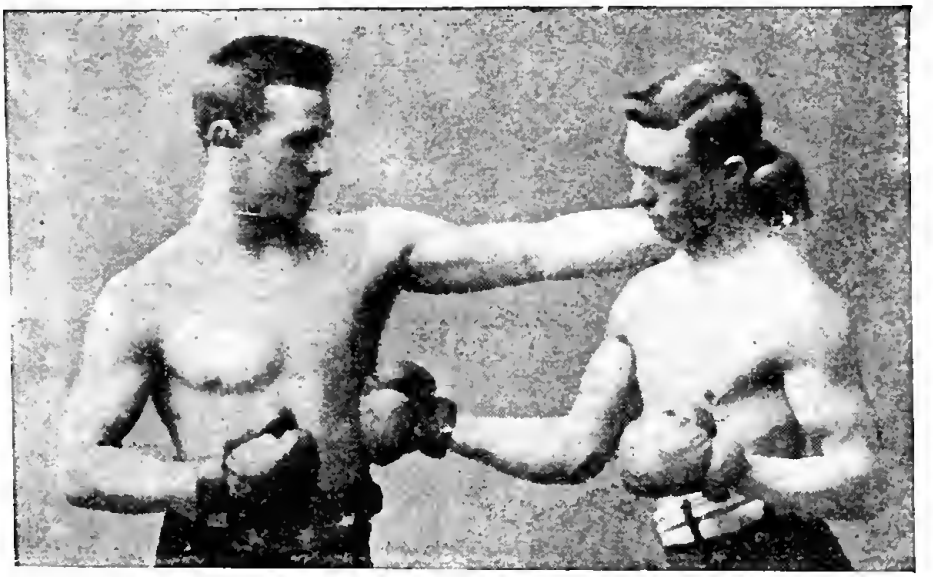
Yours very truly,

Robert Fitzsimmons

A. G. SPALDING & BROS.

NEW YORK CHICAGO DENVER

BUFFALO BALTIMORE



MESSRS. A. G. SPALDING & BROS.

GENTLEMEN: Received the express package containing set of five-ounce Contest Gloves and the hand-sewed striking bag. To make a long story short, will say that they are simply perfect. The gloves are made of the nicest material I have ever used in my long career, and I am satisfied that the oil-tanned leather will be a great improvement, and that the inter-lining will add greatly to the durability and strength of the gloves

I will most certainly use them in all my contests, for it is almost an impossibility to hurt one's hands when encased in a glove made on these lines.

The bag is a marvel for speed and answers all the requirements, being light, perfectly shaped and durable.

I heartily recommend both articles as the best of the kind I have ever used.

Very truly yours,

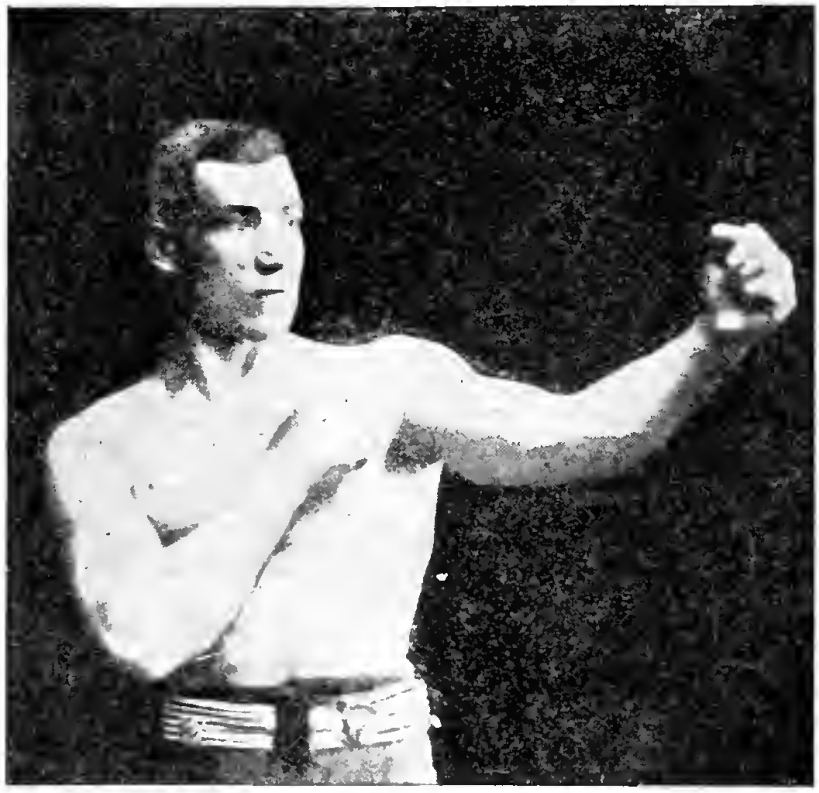
Tommy Ryan.

Middle-weight Champion of the World.

A. G. SPALDING & BROS.

NEW YORK CHICAGO DENVER

BUFFALO BALTIMORE



MESSRS. A. G. SPALDING & BROS.

GENTLEMEN—After a careful trial, taking everything into consideration, I have no hesitancy in saying that the five-ounce Contest Gloves, made by you, are the best I have ever seen or used. I showed them to Mike Donovan of the New York Athletic Club, and Bob Armstrong, and they, too, pronounce them great. The idea of their being leather lined, and the new thumb, are a big advantage, as it enables one to hit without endangering his hands, and especially one who hits as hard as I do, is far less liable to hurt his hands, when properly fitted with gloves.

The striking bag is what the "doctor ordered," and you cannot improve on it. It is fast, durable and perfect in every way and you are to be congratulated on perfecting the articles in question.

Wishing you success, I remain,

Very truly yours,

Thomas J Sharkey

A. G. SPALDING & BROS.

NEW YORK CHICAGO DENVER
BUFFALO BALTIMORE

A. G. SPALDING & BROS.

GENTLEMEN—I have carefully inspected the glove you are manufacturing, called the "Spalding Special" Contest Glove, and after a thorough examination must confess it is by far the most comfortable glove I have ever had on my hand. It possesses all the requirements and I am fully satisfied it will gain universal recognition and will be adopted by all the promoters throughout the country. The idea of being made of special kid leather, and also being lined with a special tanned perspiration proof leather, makes it doubly strong, for it can stand any amount of rough usage without becoming unfit for use, as in most instances, after a glove becomes wet with perspiration, it stretches and gets out of shape and is utterly worthless.

Copyright, 1901, by J. Hall, 1456 Broadway, New York.

I gave the glove a thorough trial and am confident you have hit the nail on the head, and have no hesitancy in recommending the article in question to those who are interested.

Yours very truly,

Young Corbett

Featherweight Champion of the World.

A. G. SPALDING & BROS.

NEW YORK CHICAGO DENVER
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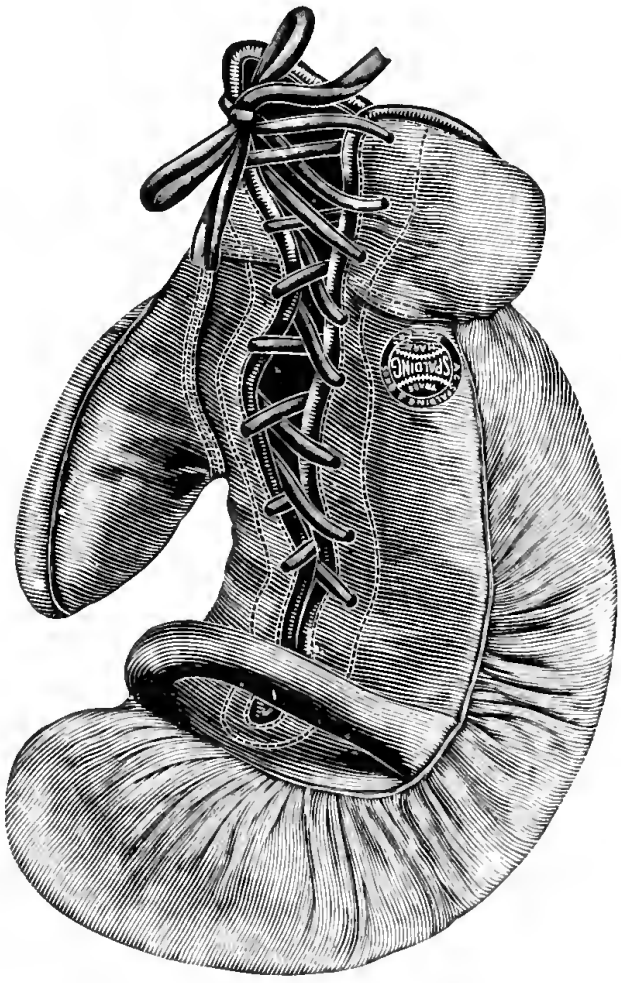
—Spalding's Boxing Gloves—



Cut illustrates the patent palm lacing and patent palm grip referred to in descriptions of following boxing gloves. With these improvements we believe our line is absolutely the finest on the market. The patent palm lacing insuring a snug fit at all times is a very valuable feature, and the patent palm grip, we know, will be appreciated by those who want gloves that are up-to-date in every particular.

No. 11. Corbett Pattern, large 7 oz. glove, gambia tan leather, padded with best curled hair, patent palm lacing, padded wristband, patent palm grip Substantially made throughout for hard usage. Per set, $4.50

No. 9. Regulation 5 oz. glove, otherwise same as No 11. Set, $4 50

No. 13. Corbett pattern, olive tanned leather, well padded with hair, patent palm lacing and patent palm grip, leather lined and bound, ... Per set, $4.00

No. 15. Corbett Pattern, soft tanned leather, well padded with hair, patent palm lacing and patent palm grip. Per set, $3.00

Handsomely Illustrated Catalogue Mailed Free to any Address

A. G. SPALDING & BROS.

NEW YORK CHICAGO DENVER
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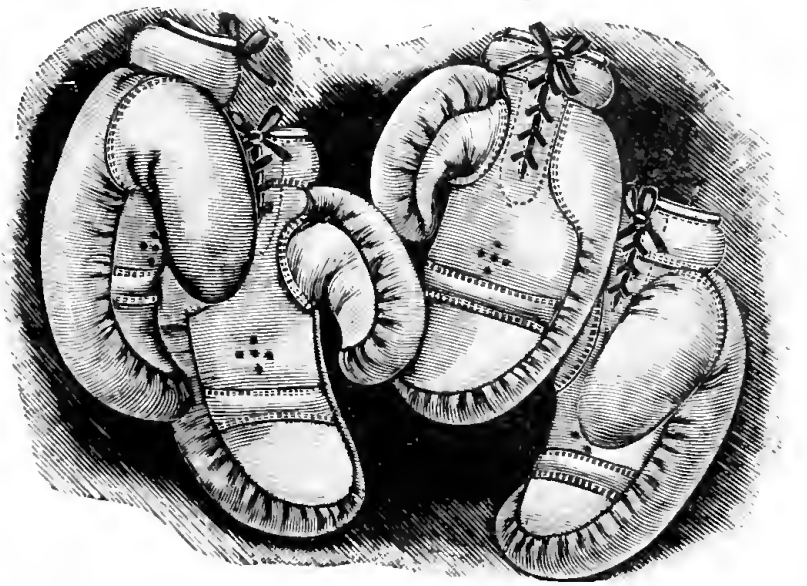
The Spalding "Championship" Boxing Gloves

Used and Endorsed by the Champions of the World



The Spalding "Championship Gloves" are endorsed by all champions and have been exclusively used for years in championship contests and in training. The material and workmanship are of highest quality, the fit is perfect, and by their peculiar construction, absolutely prevent any chance of injury to the hands or wrists. Each set is carefully inspected before packing, and guaranteed in every particular. Made in three sizes, in sets of four gloves.

No. 115. The Spalding "Championship" Glove, 5 oz. Set, $6.00
No. 116. The Spalding "Championship" Glove, 6 oz. Set, 6.00
No. 118. The Spalding "Championship" Glove, 8 oz. Set, 6.00

The Spalding "Special," No. 218

Same style as our Championship Gloves, but not quite so high a quality in material or workmanship.

No. 218. The Spalding "Special." . . Per set, $4 00

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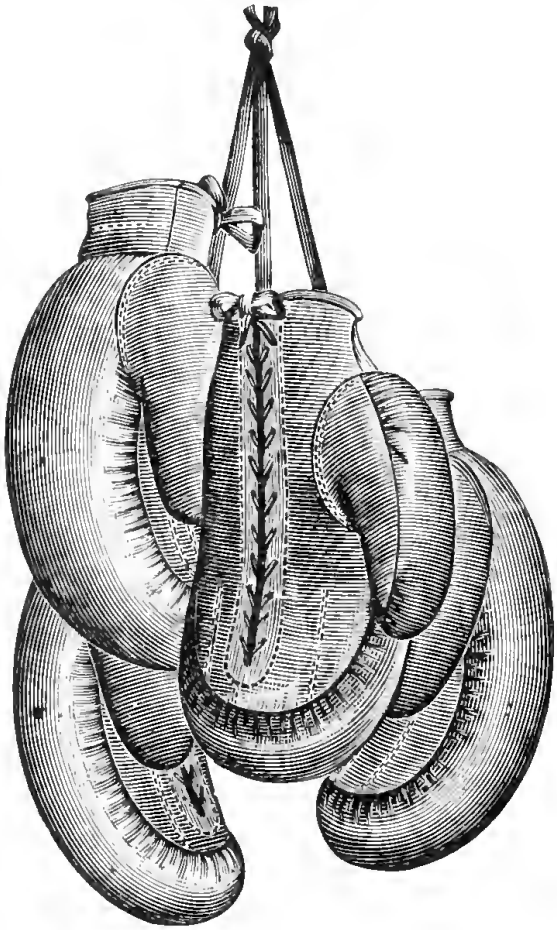
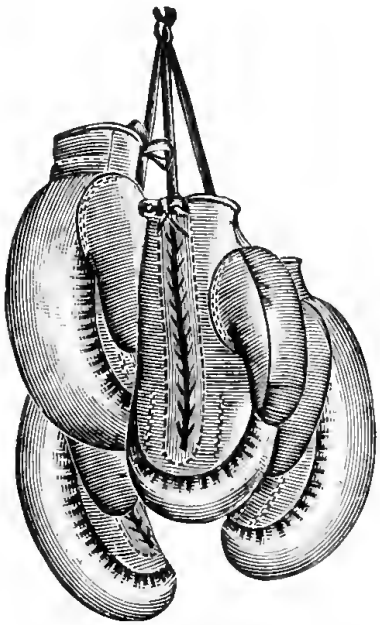
—Spalding's Boxing Gloves—

REGULAR PATTERN



No. 23. Regular Pattern.



No. 25. Regular Pattern

No. 23. Regular Pattern, outer hand-piece of olive tanned leather; grip and cuffs of darker shade; hair padded and patent palm lacing. $1 50

No. 24. Regular pattern, outer hand-piece of dark wine color tanned leather, grip and cuffs of darker shade; hair padded, elastic wrist-band. . . . Per set, $1.00

No. 25. Youths' size, regular pattern, soft tanned leather, patent palm lacing. . . . . Per set, $1.25

No. 26. Youths' size, regular pattern, dark tanned leather, elastic wrist-band. . . . . Per set, $1.00

Handsomely Illustrated Catalogue of Fall and Winter Sports
Mailed Free to any Address.

A. G. SPALDING & BROS.

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SPALDING'S
REGULATION HAND BALLS

No. 1.	Match Balls, regulation size and weight, leather cover.	$1.00
No. 2.	Expert, leather cover. . . .	.75
No. 4.	Amateur, leather cover. . . .	.25
No. 5.	Rubber hand ball.	.25

Irish Regulation

RED ACE Red Rubber Ball, 35c. | **BLACK ACE** Black Rubber Ball, 35c.

Spalding's Handsomely Illustrated Catalogue
Mailed Free to any address on application.

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ST. LOUIS BOSTON BUFFALO BALTIMORE
KANSAS CITY DENVER MINNEAPOLIS MONTREAL, CAN.
LONDON, ENG.

The Spalding "Shamrock" Hockey Stick

These sticks are made of the finest selected Canadian rock elm, only the most perfect ones being selected at our factory to be finished, stained and polished. No detail of manufacture has been neglected in making them up, and we recommend them without reserve as the most perfect sticks on the market.

No. **2-0.** Each, **75c.**

Endorsed by the Victoria Team of Winnipeg, Champions of the World

"The Spalding Championship Hockey Stick furnished our team is the best stick we have ever used. It is used by us in all our matches, and we strongly recommend it to all players."

V. C. S. ARMYTAGE.

Endorsed by the Shamrocks of Montreal, the World-Famous Team

"I hereby certify that the Spalding Championship Hockey Stick is the only stick used by our club, and we consider it the best we have ever played with. We recommend it to all players."

HARRY J. TRIHEY.

A. G. SPALDING & BROS.

New York **Chicago** **Denver**
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The Spalding "Championship" Hockey Stick

Made of the finest selected Canadian rock elm, and exclucively used and endorsed by the Victoria team of Winnipeg, champions of the world, and by the famous Shamrock team of Montreal, former champions. These sticks will not fray at the bottom where the sticks come in contact with the ice, and will retain their shape under all conditions. The very important matter of weight and balance has been carefully considered, and the "Spalding Stick" is much lighter, yet stronger, than any on the market. Forward and Defence Sticks on hand at all times.

No. **O.** Spalding "Championship" Stick. . . Each, **50c.**

Spalding's "Regulation" Stick

No. **1.** Made of selected and well seasoned timber, and on the same lines as our best grade stick. . . . Each, **50c.**

Spalding's "Practice" Stick

No. **2.** Made of good quality timber. Regulation size. A very serviceable stick. . . . . Each, **25c.**

Spalding's Youths' Stick

No **3.** A very strong and serviceable stick for boys. Painted red. . . . . Each, **25c.**

A. G. SPALDING & BROS.

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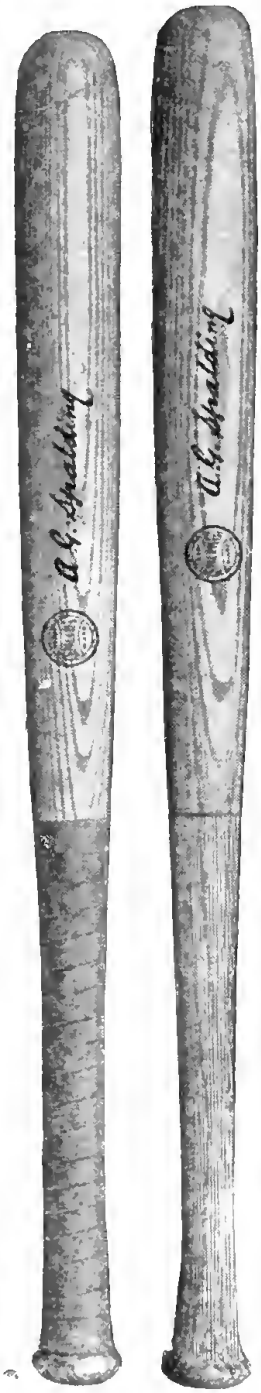
The A. G. Spalding



Tape Handle — Combed Handle

THE A. G. Spalding Autograph Base Ball Bat was introduced last season and made a pronounced hit with the leading batsmen. In quality of material and every other necessary requisite for a first-class article we believe it to be the best bat ever turned out. It has proven exceedingly popular, and this season we have added some new styles that will interest the ball player. The models are those used by the best players, and the autograph stamped on each is a guarantee that every one has passed the closest inspection and is perfect—judged according to our knowledge of base ball players' needs—gained after an experience of twenty-seven years in the manufacture of base ball bats.

Spalding's handsomely illustrated catalogue of athletic goods sent free by mail on receipt of application

A. G. SPALDING & BROS.

New York — Chicago — Philadelphia
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London, England

Autograph Bat

THE timber is seasoned for three years, not kiln-dried, but seasoned in open sheds; then, after a general inspection, it is passed under the critical eyes of men trained in a factory particularly well equipped for turning out this class of goods. We know of nothing that can be done to make an inspection more rigid, and place these bats before our customers as the finest in every particular that we can turn out.

Tape Wound Handle....	**$1.00**
Pitch Twine Wound Handle	**1.00**
Combed Handle (patented roughening process)	**.75**
Plain Handle	**.75**

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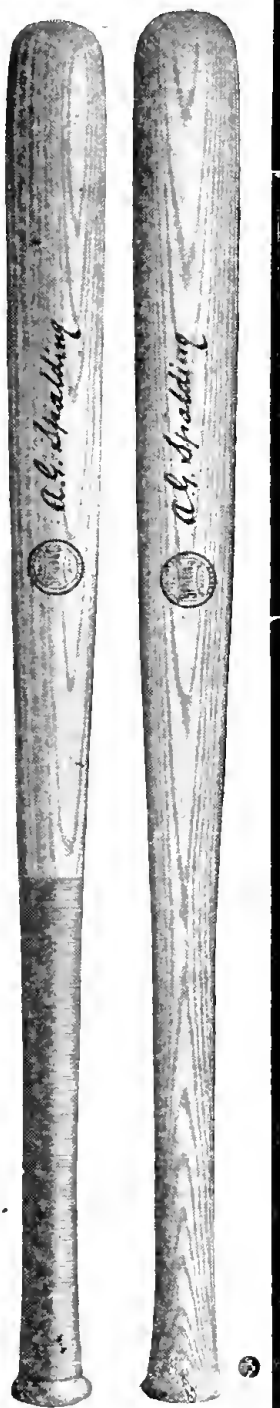
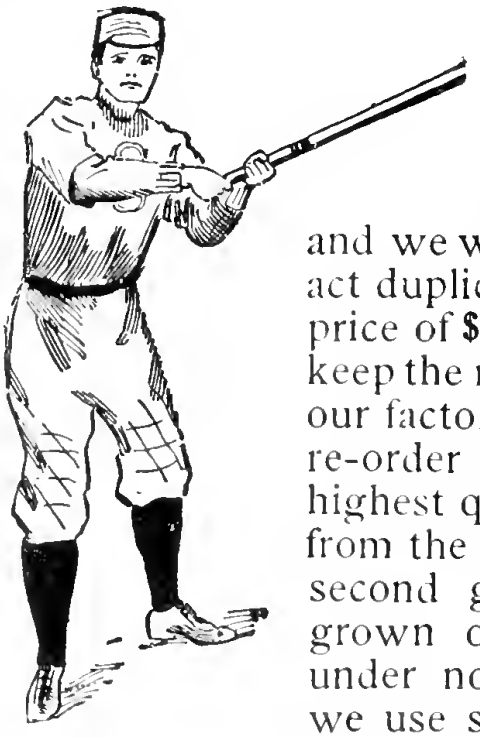


Pitch Twine Handle — Plain Handle

How About Your Bat?



If you have an old bat that is just right, or a broken bat that you wish duplicated, send it to us and we will make you an exact duplicate at the regular price of **$1 00** each. We will keep the model of your bat at our factory, so that you can re-order at any time. Our highest quality bats are made from the very best selected second growth white ash, grown on high land and under no circumstances do we use swamp or lowland ash in these bats.

Our bats are made under the supervision of Jack Pickett who has been identified with base ball for the past sixteen years, having played with the National, Eastern and Western Leagues. Mr Pickett is undoubtedly one of the best judges of base ball bats in the country and is thoroughly familiar with the players' wants.

Catalogue of Athletic Sports free

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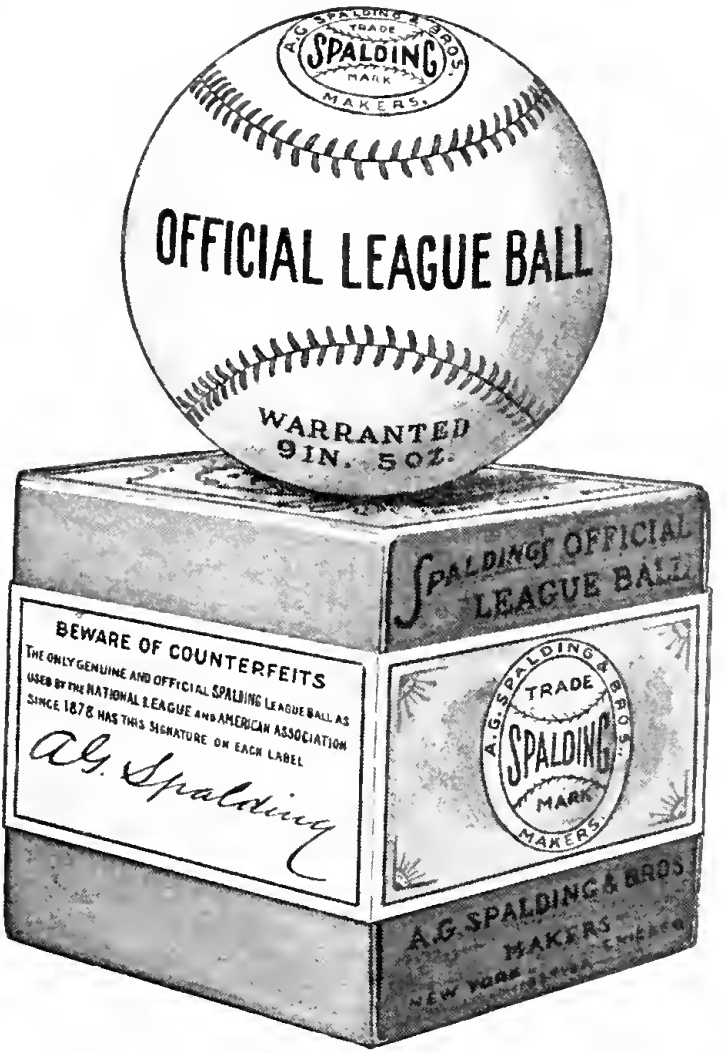

Spalding's Official League Ball. Used exclusively by the National League, Minor Leagues, and by all Intercollegiate and other Associations for over a quarter of a century. Each ball wrapped in tinfoil and put in a separate box, and sealed in accordance with the regulations of the National League and American Association. Warranted to last a full game when used under ordinary conditions.

$1.25

Spalding's Official Boys' League Ball. Combining all the excellent qualities of our National League Ball, and is carefully made in every particular. It is especially designed for junior clubs (composed of boys under sixteen years of age), and all games in which this ball is used will be recognized as legal games, the same as if played with the Official League Ball. Each ball put up in separate box and sealed.

75c.

A. G. SPALDING & BROS.

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THE SPALDING

PERFECTION

CATCHERS' MITT

FOR years our No. 7-0 Mitt has been considered as near perfection as it was possible to come in making an article of this kind. The leather is of finest quality calfskin, padding of best felt hair obtainable, and every other detail of manufacture has been carefully considered, including patent lace back with rawhide lacing. Thumb is reinforced and laced, double row of stitching on heel pad and strap-and-buckle fastening at back.

No. 7-0

$6.00

A. G. SPALDING & BROS.

New York	Chicago	Philadelphia	San Francisco
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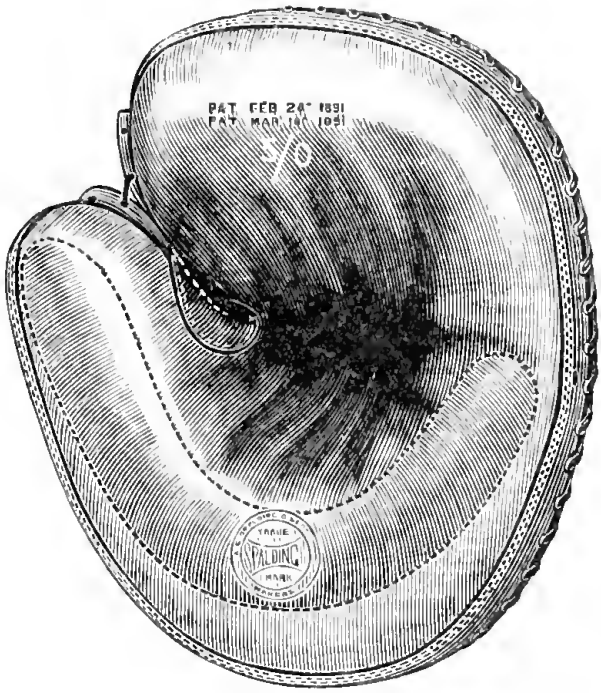
Spalding's "League" Mitt



Made of green, special tanned leather, very soft and pliable, heavily padded. An old favorite.

No. **5-O.**
Each, **$4.00**

Spalding's No. O Mitt

Face, sides and finger-piece made of velvet tanned boulevard and back of selected asbestos buck, well padded. Well known for reliability.

No. **O.** Each, **$2.50**

Spalding's No. OA Mitt

Extra large and heavily padded. Velvet tanned boulevard and a special tanned leather finger-piece and back. Extremely well made,

No. **OA.** Each, **$2.00**

We have equipped the above mitts with strap-and-buckle fastening at back. They have double row of stitching on heel pad, are reinforced and laced at thumb, and have our patent lace back as an additional feature.

A. G. SPALDING & BROS.

New York, Chicago, Philadelphia, San Francisco
St. Louis, Boston, Buffalo, Baltimore
Denver, Minneapolis, Kansas City, Montreal, Can.
London, England

SPALDING'S SUN PROTECTING MASK

Finest steel wire, extra heavy black enamelled; our patent sunshade protects the eyes without obstructing the view.

No. **4-0.**
Each, **$4.00**

SPALDING'S SPECIAL LEAGUE MASK

BLACK ENAMELLED

Made of extra heavy and best annealed steel wire. Fittings of best quality throughout.

No. **2-0.** Each, **$2.50**

No. 2=0

A. G. SPALDING & BROS.

New York	Chicago	Philadelphia	San Francisco
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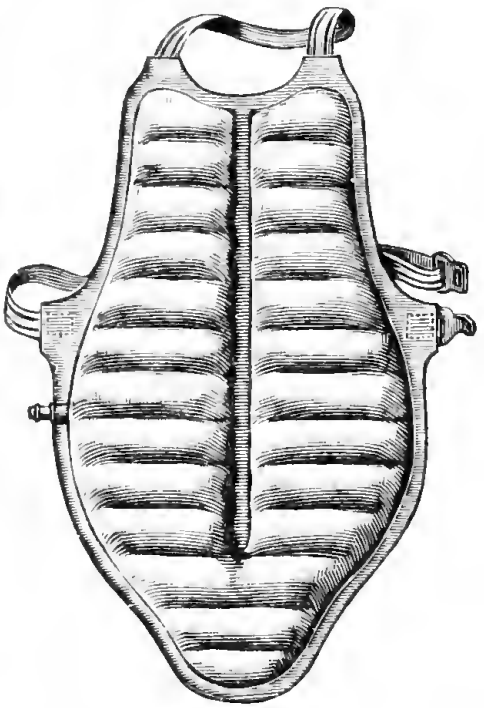
Denver	Minneapolis	Kansas City	Montreal, Can

London, England

Spalding's Inflated Body Protectors



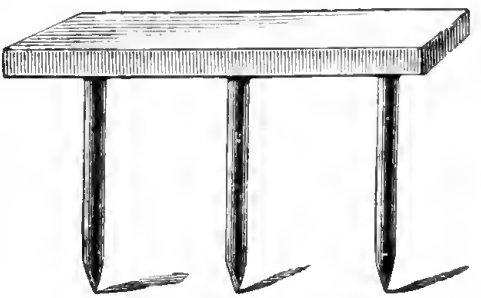
This is the only practical device for the protection of catchers and umpires. The styles listed below are made of the best rubber, inflated with air; light and pliable, and do not interfere with the movements of the wearer under any conditions. When not in use the air may be let out and the protector rolled in a very small space. Particular attention is called to our Boys' Protector, the price of which is now only $2.00, placing it within reach of all.

No. **0.**	League Catchers' Protector.	**$5.00**
No. **1.**	Amateur Catchers' Protector.	**3.50**
No. **2.**	Boys' Catchers' Protector.	**2.00**

Spalding's Pitcher's Box Plates

Made in accordance with National League regulations and of extra quality white rubber. Complete with pins.

No. **3.** Each, **$6.00**



A. G. SPALDING & BROS.

New York Chicago Philadelphia San Francisco
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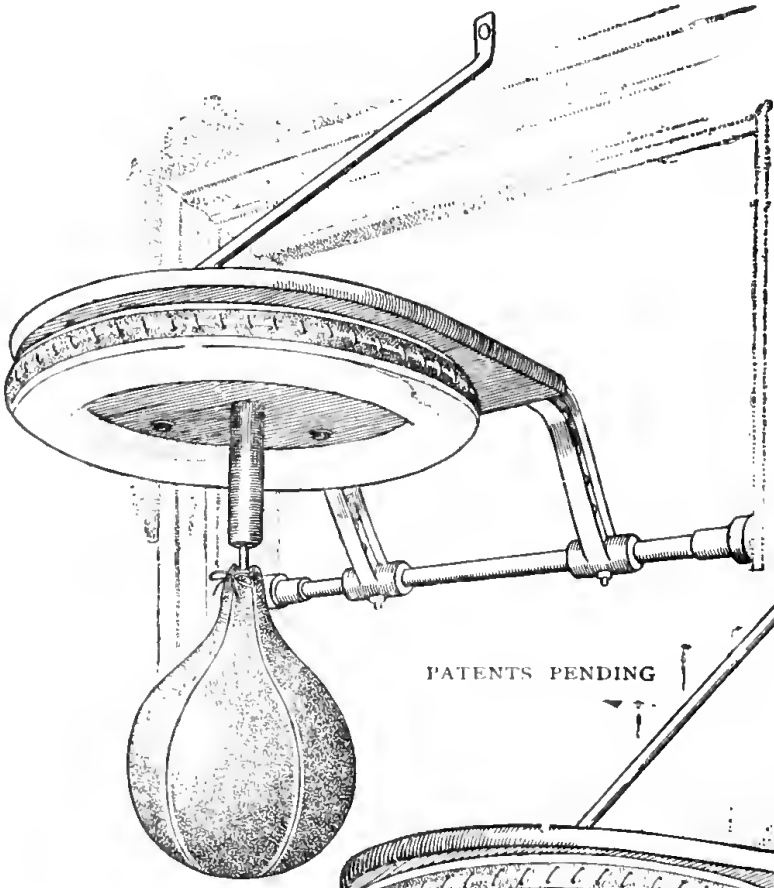
London, England

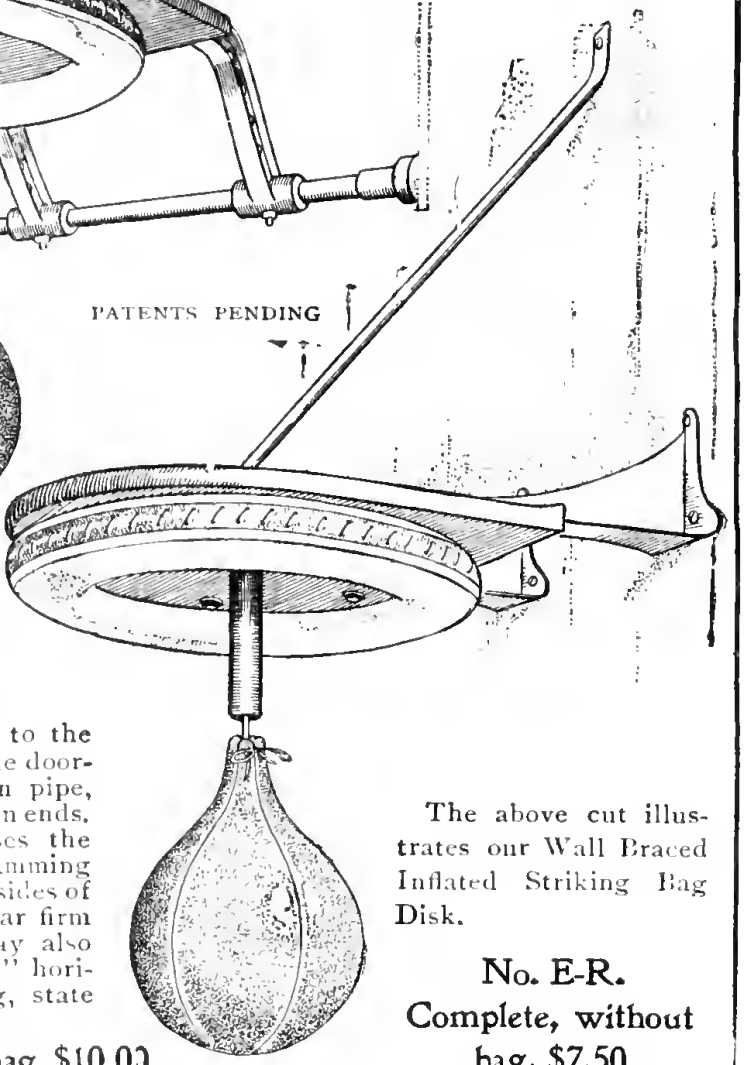
Spalding's New Inflated Striking Bag Disks



PATENTS PENDING

The above cut illustrates our Inflated Door Braced Striking Bag Disk. As will be noted, the disk is bracketed out from a doorway bar, having a single overhead brace, which is screwed to the wall above the door. The doorway bar is made of iron pipe, having rubber cushions on ends. Turning the pipe causes the end sockets to spread, jamming the cushions against the sides of door and making the bar firm and rigid. The bar may also be used as a "chinning" horizontal bar. In ordering, state widthof doorway.

No. B R. Without bag, $10 00



The above cut illustrates our Wall Braced Inflated Striking Bag Disk.

No. E-R. Complete, without bag, $7.50

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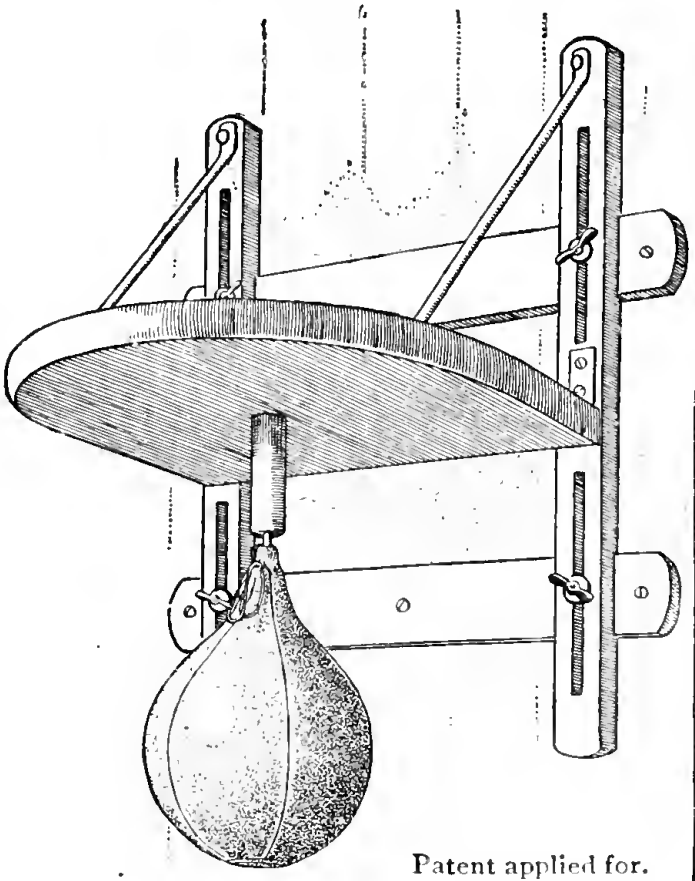

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These disks are designed to fill the want for a low priced article of durable, substantial construction. While they lack some of the distinctive virtues of our inflated disk in point of design, quality and workmanship, they are much superior to any other kind at equal cost, and being so compact, are considerably less noisy than the large gymnasium disk. It is *strongly braced*, and perfectly solid, affording the best possible striking surface for the bag obtainable from a wooden platform, and what is of more importance, it will *stay solid*.

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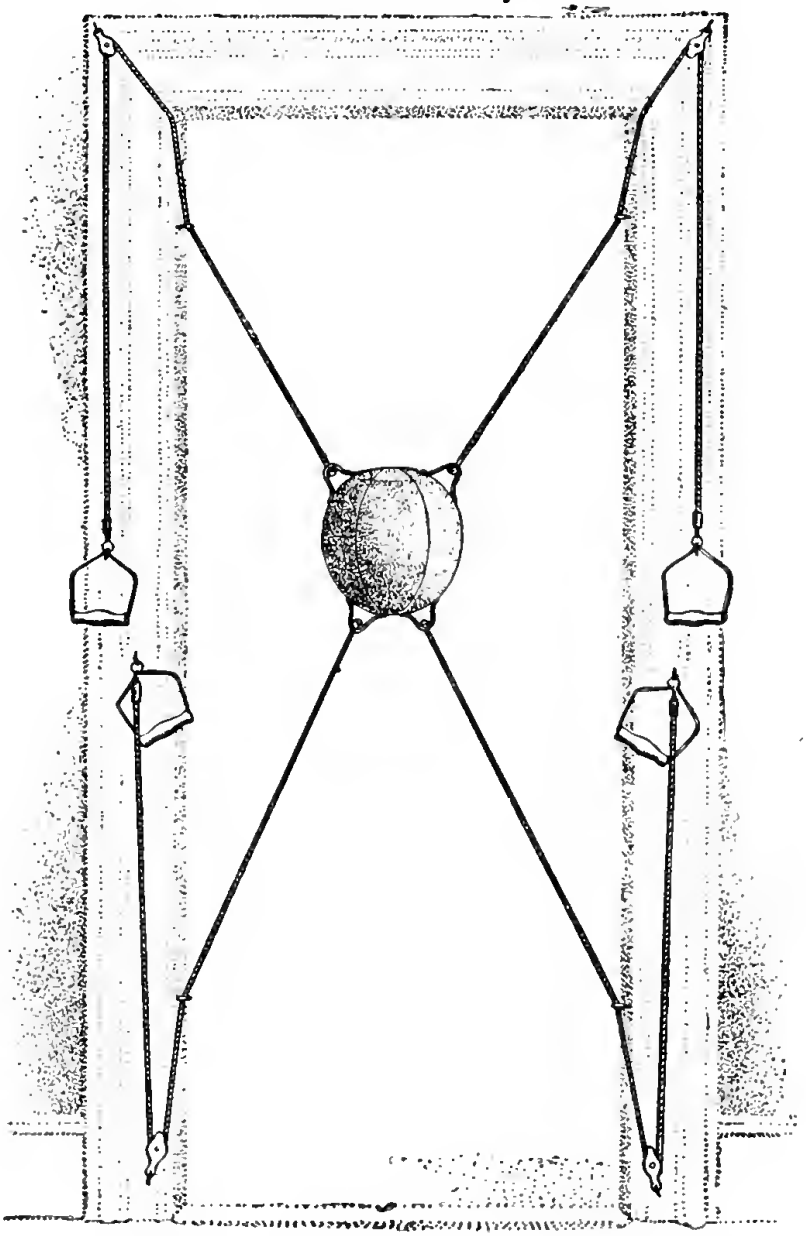

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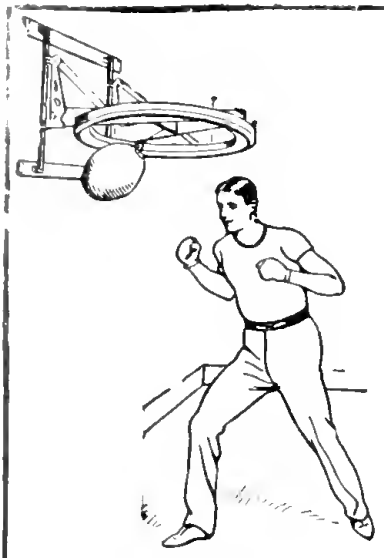

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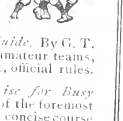

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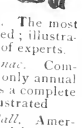

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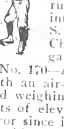

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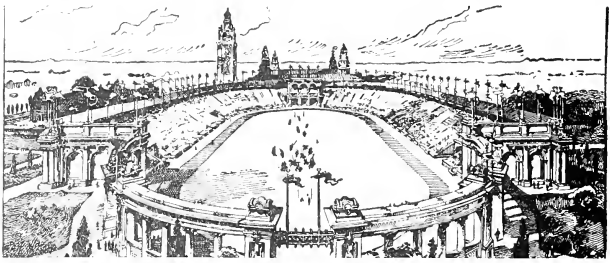

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